INVENTOR SEARCH

=> fil capl; d que l1; fil wpix; d que l35
FILE 'CAPLUS' ENTERED AT 14:42:45 ON 11 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 11 Jan 2007 VOL 146 ISS 3
FILE LAST UPDATED: 10 Jan 2007 (20070110/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L1 1 SEA FILE=CAPLUS ABB=ON LANDSCHAFT Y?/AU

FILE 'WPIX' ENTERED AT 14:42:45 ON 11 JAN 2007

FILE LAST UPDATED: 9 JAN 2007 <20070109/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE: 200702 <200702/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> YOU ARE IN THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX <<<

>>> IPC Reform reclassification data for the backfile is being loaded into the database during the first half of January 2007. There will not be any update date (UP) written for the reclassified documents, but they can be identified by 20060101/UPIC. <<<

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http://scientific.thomson.com/support/patents/coverage/latestupdates/

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf

>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX

PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

>>> New and revised Manual Codes went live in Derwent World Patents Index
To view the lists of new, revised and retired codes for both CPI and
EPI, please go to:
http://scientific.thomson.com/dwpi-manualcoderevision <<<
'BI ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

L35 1 SEA FILE=WPIX ABB=ON LANDSCHAFT Y?/AU

=> fil medl; d que l57; fil embase; d que l75

FILE 'MEDLINE' ENTERED AT 14:42:47 ON 11 JAN 2007

FILE LAST UPDATED: 10 Jan 2007 (20070110/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L57 0 SEA FILE=MEDLINE ABB=ON LANDSCHAFT Y?/AU

FILE 'EMBASE' ENTERED AT 14:42:47 ON 11 JAN 2007

FILE COVERS 1974 TO 11 Jan 2007 (20070111/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L75 0 SEA FILE=EMBASE ABB=ON LANDSCHAFT Y?/AU

=> fil agricola caba; d que l83

FILE 'AGRICOLA' ENTERED AT 14:42:48 ON 11 JAN 2007

FILE 'CABA' ENTERED AT 14:42:48 ON 11 JAN 2007

L83 0 SEA LANDSCHAFT Y?/AU

=> fil biosis kosmet; d que l98

FILE 'BIOSIS' ENTERED AT 14:42:48 ON 11 JAN 2007

FILE 'KOSMET' ENTERED AT 14:42:48 ON 11 JAN 2007

L98 0 SEA LANDSCHAFT Y?/AU

=> dup rem l1,l35

FILE 'CAPLUS' ENTERED AT 14:42:50 ON 11 JAN 2007

FILE 'WPIX' ENTERED AT 14:42:50 ON 11 JAN 2007

PROCESSING COMPLETED FOR L1
PROCESSING COMPLETED FOR L35
L117 1 DUP REM L1 L35 (1 DUPLICATE REMOVED)
ANSWER '1' FROM FILE CAPLUS

=> d ibib ed abs hitind

L117 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2004:20461 CAPLUS Full-text
DOCUMENT NUMBER: 140:82257
TITLE: An non-oily emulsion as a platform for transdermal formulations (PTF)
INVENTOR(S): **Landschaft, Yuval Simha**
PATENT ASSIGNEE(S): Holden Development, Limited, Virgin I. (Brit.)
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004002444	A2	20040108	WO 2003-IB3467	20030621
WO 2004002444	A3	20040311		
W: AU, BR, CA, CN, IL, IN, JP, KR, MX, NO, NZ, PH, PL, RU, SG, US, ZA				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
DE 10228680	A1	20040122	DE 2002-10228680	20020627
CA 2490022	A1	20040108	CA 2003-2490022	20030621
AU 2003252459	A1	20040119	AU 2003-252459	20030621
EP 1515706	A2	20050323	EP 2003-761748	20030621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
US 2005118241	A1	20050602	US 2003-511463	20030621
CN 1665492	A	20050907	CN 2003-815103	20030621
JP 2005535635	T	20051124	JP 2004-517161	20030621
ZA 2005000710	A	20050905	ZA 2005-710	20050103
PRIORITY APPLN. INFO.:			DE 2002-10228680 A	20020627
			WO 2003-IB3467 W	20030621

ED Entered STN: 11 Jan 2004

AB A composition which can be used as a platform for transdermal formulations (PTF) of therapeutically active compds. and/or nutrients comprises (a) at least one therapeutically active compound and/or at least one nutrient, and (b) a non-oily emulsion. The non-oily emulsion comprises a mixture of lecithin, bile salt, and cholesterol, each of the components present in an amount between 2% and 15% (weight/volume), e.g., in a ratio by weight of 2:1:1 (lecithin/bile salt/cholesterol). The composition further contains an organic sulfur compound, e.g., dimethylsulfoxide, methylsulfonylmethane, or sodium lauryl sulfate. For example, a patch soaked with the non-oily emulsion of the invention comprising methylsulfonylmethane and insulin was applied to a healthy volunteer after establishing the subject's glucose baseline (102 mg/dL (mg%)). Half an hour later, the blood glucose concentration was reduced by 5 to 8%.

IC ICM A61K009-00

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 2

TEXT SEARCH

```
=>
=> => fil capl; d que l22; d que l20; d que l30; d que l32; d que l34
FILE 'CAPLUS' ENTERED AT 14:44:39 ON 11 JAN 2007
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FILE COVERS 1907 - 11 Jan 2007  VOL 146 ISS 3
FILE LAST UPDATED: 10 Jan 2007  (20070110/ED)

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They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE


L2             1 SEA FILE=REGISTRY ABB=ON  CHOLESTEROL/CN
L3             1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
L4             1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5             1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6             1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7             1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L8         29874 SEA FILE=CAPLUS ABB=ON  LECITHIN#/OBI
L9          5802 SEA FILE=CAPLUS ABB=ON  BILE SALT#/OBI
L10        11358 SEA FILE=CAPLUS ABB=ON  TRANSDERM?/OBI
L11       119778 SEA FILE=CAPLUS ABB=ON  L2
L12        69970 SEA FILE=CAPLUS ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L22           13 SEA FILE=CAPLUS ABB=ON  ((L11 AND (L8 OR L9)) OR (L8 AND L9))
                 AND L12 AND L10



L10        11358 SEA FILE=CAPLUS ABB=ON  TRANSDERM?/OBI
L19           22 SEA FILE=CAPLUS ABB=ON  NON OILY/OBI OR NONOILY/OBI
L20            1 SEA FILE=CAPLUS ABB=ON  L19 AND L10



L3             1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
L4             1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5             1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6             1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7             1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L8         29874 SEA FILE=CAPLUS ABB=ON  LECITHIN#/OBI
L9          5802 SEA FILE=CAPLUS ABB=ON  BILE SALT#/OBI
L12        69970 SEA FILE=CAPLUS ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
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L25          4590 SEA FILE=CAPLUS ABB=ON  SKIN/OBI(L)(PERMEAT?/OBI OR PENETRAT?/O
                  BI)
L30             7 SEA FILE=CAPLUS ABB=ON  (L8 OR L9) AND L12 AND L25



L2              1 SEA FILE=REGISTRY ABB=ON  CHOLESTEROL/CN
L3              1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
L4              1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5              1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6              1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7              1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L11        119778 SEA FILE=CAPLUS ABB=ON  L2
L12         69970 SEA FILE=CAPLUS ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L25          4590 SEA FILE=CAPLUS ABB=ON  SKIN/OBI(L)(PERMEAT?/OBI OR PENETRAT?/O
                  BI)
L32             2 SEA FILE=CAPLUS ABB=ON  L11(L)L25 AND L12



L2              1 SEA FILE=REGISTRY ABB=ON  CHOLESTEROL/CN
L3              1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
L4              1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5              1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6              1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7              1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L11        119778 SEA FILE=CAPLUS ABB=ON  L2
L12         69970 SEA FILE=CAPLUS ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L17        166735 SEA FILE=CAPLUS ABB=ON  EMULSI?/OBI
L25          4590 SEA FILE=CAPLUS ABB=ON  SKIN/OBI(L)(PERMEAT?/OBI OR PENETRAT?/O
                  BI)
L34             1 SEA FILE=CAPLUS ABB=ON  L17(L)L11 AND L12 AND L25


=> s l22,l20,l30,l32,l34 not l1

L118           19 (L22 OR L20 OR L30 OR L32 OR L34) NOT L1

=> fil wpix; d que l49; d que l52; d que l54; d que l56

FILE 'WPIX' ENTERED AT 14:44:41 ON 11 JAN 2007
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FILE LAST UPDATED:                          9 JAN 2007   <20070109/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE:     200702      <200702/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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>>> IPC Reform reclassification data for the backfile is being
    loaded into the database during the first half of January 2007.
    There will not be any update date (UP) written for the reclassified
    documents, but they can be identified by 20060101/UPIC. <<<

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FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
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```

PLEASE BE AWARE OF THE NEW IPC-REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf

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PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<

>>> New and revised Manual Codes went live in Derwent World Patents Index
To view the lists of new, revised and retired codes for both CPI and
EPI, please go to:
http://scientific.thomson.com/dwpi-manualcoderevision <<<
'BI ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

L36 4569 SEA FILE=WPIX ABB=ON B12-M02F/MC OR C12-M02F/MC =TRANSDERMAL
L37 24886 SEA FILE=WPIX ABB=ON TRANSDERM?/BI,ABEX
L38 2839 SEA FILE=WPIX ABB=ON (DERM?/BI,ABEX OR SKIN/BI,ABEX)(3A)(PERME
AT?/BI,ABEX OR PENETRAT?/BI,ABEX)
L39 9481 SEA FILE=WPIX ABB=ON LECITHIN#/BI,ABEX
L40 593 SEA FILE=WPIX ABB=ON BILE SALT#/BI,ABEX
L41 17188 SEA FILE=WPIX ABB=ON CHOLESTEROL/BI,ABEX
L42 1380 SEA FILE=WPIX ABB=ON ORGANIC/BI,ABEX(W)(SULFUR/BI,ABEX OR
SULPHUR/BI,ABEX)
L43 12292 SEA FILE=WPIX ABB=ON DIMETHYLSULFOXIDE/BI,ABEX OR (DIMETHYL/BI
,ABEX OR DI METHYL/BI,ABEX)(W)(SULFOXIDE/BI,ABEX OR SULPHOXIDE/
BI,ABEX)
L44 190 SEA FILE=WPIX ABB=ON METHYLSULFONYLMETHANE/BI,ABEX OR
METHYLSULPHONYLMETHANE/BI,ABEX OR (METHYL/BI,ABEX(W)(SULFONYL/B
I,ABEX OR SULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX) OR METHYL/BI,AB
EX(W)(SULFONYLMETHANE/BI,ABEX OR SULPHONYLMETHANE/BI,ABEX) OR
(METHYLSULFONYL/BI,ABEX OR METHYSULPHONYL/BI,ABEX)(W)METHANE/BI
,ABEX
L45 34 SEA FILE=WPIX ABB=ON DIMETHYLSULFOLANE/BI,ABEX OR DIMETHYSULPH
OLANE/BI,ABEX OR (DIMETHYL/BI,ABEX OR DI METHYL/BI,ABEX)(W)(SUL
PHOLANE/BI,ABEX OR SULFOLANE/BI,ABEX)
L46 4401 SEA FILE=WPIX ABB=ON SODIUM LAURYL/BI,ABEX(W)(SULFATE/BI,ABEX
OR SULPHATE/BI,ABEX)
L49 2 SEA FILE=WPIX ABB=ON (L36 OR L37 OR L38) AND L39 AND L40 AND
L41 AND (L42 OR L43 OR L44 OR L45 OR L46)

L36 4569 SEA FILE=WPIX ABB=ON B12-M02F/MC OR C12-M02F/MC
L37 24886 SEA FILE=WPIX ABB=ON TRANSDERM?/BI,ABEX
L38 2839 SEA FILE=WPIX ABB=ON (DERM?/BI,ABEX OR SKIN/BI,ABEX)(3A)(PERME
AT?/BI,ABEX OR PENETRAT?/BI,ABEX)
L39 9481 SEA FILE=WPIX ABB=ON LECITHIN#/BI,ABEX
L40 593 SEA FILE=WPIX ABB=ON BILE SALT#/BI,ABEX
L41 17188 SEA FILE=WPIX ABB=ON CHOLESTEROL/BI,ABEX
L42 1380 SEA FILE=WPIX ABB=ON ORGANIC/BI,ABEX(W)(SULFUR/BI,ABEX OR
SULPHUR/BI,ABEX)
L43 12292 SEA FILE=WPIX ABB=ON DIMETHYLSULFOXIDE/BI,ABEX OR (DIMETHYL/BI
,ABEX OR DI METHYL/BI,ABEX)(W)(SULFOXIDE/BI,ABEX OR SULPHOXIDE/
BI,ABEX)
L44 190 SEA FILE=WPIX ABB=ON METHYLSULFONYLMETHANE/BI,ABEX OR
METHYLSULPHONYLMETHANE/BI,ABEX OR (METHYL/BI,ABEX(W)(SULFONYL/B
I,ABEX OR SULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX) OR METHYL/BI,AB

		EX(W)(SULFONYLMETHANE/BI,ABEX OR SULPHONYLMETHANE/BI,ABEX) OR (METHYLSULFONYL/BI,ABEX OR METHYSULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX
L45	34	SEA FILE=WPIX ABB=ON DIMETHYLSULFOLANE/BI,ABEX OR DIMETHYSULPHOLANE/BI,ABEX OR (DIMETHYL/BI,ABEX OR DI METHYL/BI,ABEX)(W)(SULPHOLANE/BI,ABEX OR SULFOLANE/BI,ABEX)
L46	4401	SEA FILE=WPIX ABB=ON SODIUM LAURYL/BI,ABEX(W)(SULFATE/BI,ABEX OR SULPHATE/BI,ABEX)
L47	185	SEA FILE=WPIX ABB=ON NONOILY/BI,ABEX OR NON OILY/BI,ABEX
L48	170299	SEA FILE=WPIX ABB=ON EMULSI?/BI,ABEX
L52	4	SEA FILE=WPIX ABB=ON (L36 OR L37 OR L38) AND L47 AND (L39 OR L40 OR L41 OR L42 OR L43 OR L44 OR L45 OR L46 OR L48)
L36	4569	SEA FILE=WPIX ABB=ON B12-M02F/MC OR C12-M02F/MC
L37	24886	SEA FILE=WPIX ABB=ON TRANSDERM?/BI,ABEX
L38	2839	SEA FILE=WPIX ABB=ON (DERM?/BI,ABEX OR SKIN/BI,ABEX)(3A)(PERMEAT?/BI,ABEX OR PENETRAT?/BI,ABEX)
L39	9481	SEA FILE=WPIX ABB=ON LECITHIN#/BI,ABEX
L40	593	SEA FILE=WPIX ABB=ON BILE SALT#/BI,ABEX
L41	17188	SEA FILE=WPIX ABB=ON CHOLESTEROL/BI,ABEX
L42	1380	SEA FILE=WPIX ABB=ON ORGANIC/BI,ABEX(W)(SULFUR/BI,ABEX OR SULPHUR/BI,ABEX)
L43	12292	SEA FILE=WPIX ABB=ON DIMETHYLSULFOXIDE/BI,ABEX OR (DIMETHYL/BI,ABEX OR DI METHYL/BI,ABEX)(W)(SULFOXIDE/BI,ABEX OR SULPHOXIDE/BI,ABEX)
L44	190	SEA FILE=WPIX ABB=ON METHYLSULFONYLMETHANE/BI,ABEX OR METHYLSULPHONYLMETHANE/BI,ABEX OR (METHYL/BI,ABEX(W)(SULFONYL/BI,ABEX OR SULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX) OR METHYL/BI,ABEX(W)(SULFONYLMETHANE/BI,ABEX OR SULPHONYLMETHANE/BI,ABEX) OR (METHYLSULFONYL/BI,ABEX OR METHYSULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX
L45	34	SEA FILE=WPIX ABB=ON DIMETHYLSULFOLANE/BI,ABEX OR DIMETHYSULPHOLANE/BI,ABEX OR (DIMETHYL/BI,ABEX OR DI METHYL/BI,ABEX)(W)(SULPHOLANE/BI,ABEX OR SULFOLANE/BI,ABEX)
L46	4401	SEA FILE=WPIX ABB=ON SODIUM LAURYL/BI,ABEX(W)(SULFATE/BI,ABEX OR SULPHATE/BI,ABEX)
L50	13	SEA FILE=WPIX ABB=ON (L36 OR L37 OR L38) AND ((L39 AND (L40 OR L41)) OR (L40 AND L41)) AND (L42 OR L43 OR L44 OR L45 OR L46)
L54	6	SEA FILE=WPIX ABB=ON L50 AND (TRANSDERM?/TI OR L36)
L36	4569	SEA FILE=WPIX ABB=ON B12-M02F/MC OR C12-M02F/MC
L37	24886	SEA FILE=WPIX ABB=ON TRANSDERM?/BI,ABEX
L38	2839	SEA FILE=WPIX ABB=ON (DERM?/BI,ABEX OR SKIN/BI,ABEX)(3A)(PERMEAT?/BI,ABEX OR PENETRAT?/BI,ABEX)
L39	9481	SEA FILE=WPIX ABB=ON LECITHIN#/BI,ABEX
L40	593	SEA FILE=WPIX ABB=ON BILE SALT#/BI,ABEX
L41	17188	SEA FILE=WPIX ABB=ON CHOLESTEROL/BI,ABEX
L42	1380	SEA FILE=WPIX ABB=ON ORGANIC/BI,ABEX(W)(SULFUR/BI,ABEX OR SULPHUR/BI,ABEX)
L43	12292	SEA FILE=WPIX ABB=ON DIMETHYLSULFOXIDE/BI,ABEX OR (DIMETHYL/BI,ABEX OR DI METHYL/BI,ABEX)(W)(SULFOXIDE/BI,ABEX OR SULPHOXIDE/BI,ABEX)
L44	190	SEA FILE=WPIX ABB=ON METHYLSULFONYLMETHANE/BI,ABEX OR METHYLSULPHONYLMETHANE/BI,ABEX OR (METHYL/BI,ABEX(W)(SULFONYL/BI,ABEX OR SULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX) OR METHYL/BI,AB

```
                EX(W)(SULFONYLMETHANE/BI,ABEX OR SULPHONYLMETHANE/BI,ABEX) OR
                (METHYLSULFONYL/BI,ABEX OR METHYSULPHONYL/BI,ABEX)(W)METHANE/BI
                ,ABEX
L45          34 SEA FILE=WPIX ABB=ON  DIMETHYLSULFOLANE/BI,ABEX OR DIMETHYSULPH
                OLANE/BI,ABEX OR (DIMETHYL/BI,ABEX OR DI METHYL/BI,ABEX)(W)(SUL
                PHOLANE/BI,ABEX OR SULFOLANE/BI,ABEX)
L46        4401 SEA FILE=WPIX ABB=ON  SODIUM LAURYL/BI,ABEX(W)(SULFATE/BI,ABEX
                OR SULPHATE/BI,ABEX)
L50          13 SEA FILE=WPIX ABB=ON  (L36 OR L37 OR L38) AND ((L39 AND (L40
                OR L41)) OR (L40 AND L41)) AND (L42 OR L43 OR L44 OR L45 OR
                L46)
L56           3 SEA FILE=WPIX ABB=ON  L50 AND INSULIN/BI,ABEX


=> s l49,l52,l54,l56 not l35

L119         10 (L49 OR L52 OR L54 OR L56) NOT L35

=> fil medl; d que l70; d que l74

FILE 'MEDLINE' ENTERED AT 14:44:45 ON 11 JAN 2007

 FILE LAST UPDATED: 10 Jan 2007 (20070110/UP).  FILE COVERS 1950 TO DATE.

  All regular MEDLINE updates from November 15 to December 16 have been
  added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R))
  and 2007 tree numbers.

  The annual reload will be available in early 2007.

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


L3            1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
L4            1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5            1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6            1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7            1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L58        9117 SEA FILE=MEDLINE ABB=ON  ADMINISTRATION, CUTANEOUS/CT
L59        1480 SEA FILE=MEDLINE ABB=ON  ADMINISTRATION, RECTAL/CT
L60        2224 SEA FILE=MEDLINE ABB=ON  ADMINISTRATION, INTRAVAGINAL/CT
L61       27079 SEA FILE=MEDLINE ABB=ON  PHOSPHATIDYLCHOLINES+NT/CT
L62       26145 SEA FILE=MEDLINE ABB=ON  "BILE ACIDS AND SALTS"+NT/CT
L63       85938 SEA FILE=MEDLINE ABB=ON  CHOLESTEROL/CT
L64       15552 SEA FILE=MEDLINE ABB=ON  DIMETHYLSULFOXIDE OR (DIMETHYL OR DI
                METHYL)(W)(SULFOXIDE OR SULPHOXIDE)
L65          22 SEA FILE=MEDLINE ABB=ON  METHYLSULFONYLMETHANE OR METHYLSULPHON
                YLMETHANE OR (METHYL(W)(SULFONYL OR SULPHONYL)(W)METHANE) OR
                METHYL(W)(SULFONYLMETHANE OR SULPHONYLMETHANE) OR (METHYLSULFON
                YL OR METHYSULPHONYL)(W)METHANE
L66           2 SEA FILE=MEDLINE ABB=ON  DIMETHYLSULFOLANE OR DIMETHYSULPHOLANE
                 OR (DIMETHYL OR DI METHYL)(W)(SULPHOLANE OR SULFOLANE)
L67        1093 SEA FILE=MEDLINE ABB=ON  SODIUM LAURYL(W)(SULFATE OR SULPHATE)

L68       19751 SEA FILE=MEDLINE ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L70           1 SEA FILE=MEDLINE ABB=ON  (L58 OR L59 OR L60) AND (L61 OR L62
                OR L63) AND (L64 OR L65 OR L66 OR L67 OR L68)
```

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L58         9117 SEA FILE=MEDLINE ABB=ON  ADMINISTRATION, CUTANEOUS/CT
L59         1480 SEA FILE=MEDLINE ABB=ON  ADMINISTRATION, RECTAL/CT
L60         2224 SEA FILE=MEDLINE ABB=ON  ADMINISTRATION, INTRAVAGINAL/CT
L61        27079 SEA FILE=MEDLINE ABB=ON  PHOSPHATIDYLCHOLINES+NT/CT
L62        26145 SEA FILE=MEDLINE ABB=ON  "BILE ACIDS AND SALTS"+NT/CT
L63        85938 SEA FILE=MEDLINE ABB=ON  CHOLESTEROL/CT
L73        10056 SEA FILE=MEDLINE ABB=ON  DRUG CARRIERS/CT
L74            5 SEA FILE=MEDLINE ABB=ON  (L58 OR L59 OR L60) AND ((L61 AND
                 (L62 OR L63)) OR (L62 AND L63))  AND L73


=> s l70,l74

L120           6 (L70 OR L74)

=> fil embase;d que l82

FILE 'EMBASE' ENTERED AT 14:44:47 ON 11 JAN 2007
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 FILE COVERS 1974 TO 11 Jan 2007 (20070111/ED)

 EMBASE is now updated daily.  SDI frequency remains weekly (default)
 and biweekly.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


L3             1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
L4             1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5             1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6             1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7             1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L64        15552 SEA FILE=MEDLINE ABB=ON  DIMETHYLSULFOXIDE OR (DIMETHYL OR DI
                 METHYL)(W)(SULFOXIDE OR SULPHOXIDE)
L65           22 SEA FILE=MEDLINE ABB=ON  METHYLSULFONYLMETHANE OR METHYLSULPHON
                 YLMETHANE OR (METHYL(W)(SULFONYL OR SULPHONYL)(W)METHANE) OR
                 METHYL(W)(SULFONYLMETHANE OR SULPHONYLMETHANE) OR (METHYLSULFON
                 YL OR METHYSULPHONYL)(W)METHANE
L66            2 SEA FILE=MEDLINE ABB=ON  DIMETHYLSULFOLANE OR DIMETHYSULPHOLANE
                  OR (DIMETHYL OR DI METHYL)(W)(SULPHOLANE OR SULFOLANE)
L67         1093 SEA FILE=MEDLINE ABB=ON  SODIUM LAURYL(W)(SULFATE OR SULPHATE)

L76        11773 SEA FILE=EMBASE ABB=ON  TRANSDERMAL DRUG ADMINISTRATION+NT/CT
L77        65530 SEA FILE=EMBASE ABB=ON  CHOLESTEROL/CT
L78        17422 SEA FILE=EMBASE ABB=ON  PHOSPHATIDYLCHOLINE/CT
L79         3941 SEA FILE=EMBASE ABB=ON  BILE SALT+NT/CT
L80        19557 SEA FILE=EMBASE ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L81        17096 SEA FILE=EMBASE ABB=ON  (L64 OR L65 OR L66 OR L67)
L82           12 SEA FILE=EMBASE ABB=ON  L76 AND (L77 OR L78 OR L79) AND (L80
                 OR L81)


=> fil agricola caba; d que l95; d que l97

FILE 'AGRICOLA' ENTERED AT 14:44:48 ON 11 JAN 2007

FILE 'CABA' ENTERED AT 14:44:48 ON 11 JAN 2007
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L3            1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
L4            1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5            1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6            1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7            1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L84         273 SEA TRANSDERM?
L85         706 SEA (DERM? OR SKIN)(3A)(PERMEAT? OR PENETRAT?)
L86       56676 SEA CHOLESTEROL
L87        8885 SEA LECITHIN# OR PHOSPHATIDYLCHOLINE#
L88        2131 SEA BILE SALT#
L89        4523 SEA (L3 OR L4 OR L5 OR L6 OR L7)
L90        1629 SEA ORGANIC(W)(SULFUR OR SULPHUR)
L91        3433 SEA DIMETHYLSULFOXIDE OR (DIMETHYL OR DI METHYL)(W)(SULFOXIDE
                OR SULPHOXIDE)
L92          16 SEA METHYLSULFONYLMETHANE OR METHYLSULPHONYLMETHANE OR
                (METHYL(W)(SULFONYL OR SULPHONYL)(W) METHANE) OR METHYL(W)(SULF
                ONYLMETHANE OR SULPHONYLMETHANE) OR (METHYLSULFONYL OR
                METHYSULPHONYL)(W) METHANE
L93           0 SEA DIMETHYLSULFOLANE OR DIMETHYSULPHOLANE OR (DIMETHYL OR DI
                METHYL)(W)(SULPHOLANE OR SULFOLANE)
L94         258 SEA SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L95           0 SEA (L84 OR L85) AND (L86 OR L87 OR L88) AND (L89 OR L90 OR
                L91 OR L92 OR L93 OR L94)



L84         273 SEA TRANSDERM?
L85         706 SEA (DERM? OR SKIN)(3A)(PERMEAT? OR PENETRAT?)
L86       56676 SEA CHOLESTEROL
L87        8885 SEA LECITHIN# OR PHOSPHATIDYLCHOLINE#
L88        2131 SEA BILE SALT#
L97           2 SEA ((L86 AND (L87 OR L88)) OR (L87 AND L88)) AND (L84 OR L85)


=> fil biosis kosmet; d que l115;d que l110

FILE 'BIOSIS' ENTERED AT 14:44:49 ON 11 JAN 2007
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FILE 'KOSMET' ENTERED AT 14:44:49 ON 11 JAN 2007
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L99         7804 SEA TRANSDERM?
L100        3924 SEA (DERM? OR SKIN)(3A)(PERMEAT? OR PENETRAT?)
L101      153008 SEA CHOLESTEROL
L102       40693 SEA LECITHIN# OR PHOSPHATIDYLCHOLINE#
L103        7428 SEA BILE SALT#
L111          16 SEA (L99 OR L100) AND ((L101 AND (L102 OR L103)) OR (L102 AND
                L103))
L114       81161 SEA HDL OR LDL OR DENSITY LIPOPROTEIN#
L115          14 SEA L111 NOT L114



L3            1 SEA FILE=REGISTRY ABB=ON  METHYLSULFONYLMETHANE/CN
```

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L4             1 SEA FILE=REGISTRY ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5             1 SEA FILE=REGISTRY ABB=ON  2,4-DIMETHYLSULFOLANE
L6             1 SEA FILE=REGISTRY ABB=ON  67-68-5
L7             1 SEA FILE=REGISTRY ABB=ON  SODIUM LAURYL SULFATE/CN
L99         7804 SEA TRANSDERM?
L100        3924 SEA (DERM? OR SKIN)(3A)(PERMEAT? OR PENETRAT?)
L101      153008 SEA CHOLESTEROL
L102       40693 SEA LECITHIN# OR PHOSPHATIDYLCHOLINE#
L103        7428 SEA BILE SALT#
L104       17468 SEA (L3 OR L4 OR L5 OR L6 OR L7)
L105         576 SEA ORGANIC(W)(SULFUR OR SULPHUR)
L106       13841 SEA DIMETHYLSULFOXIDE OR (DIMETHYL OR DI METHYL)(W)(SULFOXIDE
                 OR SULPHOXIDE)
L107          48 SEA METHYLSULFONYLMETHANE OR METHYLSULPHONYLMETHANE OR
                 (METHYL(W)(SULFONYL OR SULPHONYL)(W) METHANE) OR METHYL(W)(SULF
                 ONYLMETHANE OR SULPHONYLMETHANE) OR (METHYLSULFONYL OR
                 METHYSULPHONYL)(W) METHANE
L108           5 SEA DIMETHYLSULFOLANE OR DIMETHYSULPHOLANE OR (DIMETHYL OR DI
                 METHYL)(W)(SULPHOLANE OR SULFOLANE)
L109        1969 SEA SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L110           4 SEA (L99 OR L100) AND (L101 OR L102 OR L103) AND (L104 OR L105
                 OR L106 OR L107 OR L108 OR L109)


=> s l115,l110

L121          18 (L115 OR L110)

=> => dup rem l120,l97,l118,l119,l121,l82
DUPLICATE IS NOT AVAILABLE IN 'KOSMET'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
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PROCESSING COMPLETED FOR L120
PROCESSING COMPLETED FOR L97
PROCESSING COMPLETED FOR L118
PROCESSING COMPLETED FOR L119
PROCESSING COMPLETED FOR L121
PROCESSING COMPLETED FOR L82
L122          62 DUP REM L120 L97 L118 L119 L121 L82 (5 DUPLICATES REMOVED)
                 ANSWERS '1-6' FROM FILE MEDLINE
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ANSWERS '7-8' FROM FILE CABA
ANSWERS '9-27' FROM FILE CAPLUS
ANSWERS '28-34' FROM FILE WPIX
ANSWERS '35-48' FROM FILE BIOSIS
ANSWERS '49-51' FROM FILE KOSMET
ANSWERS '52-62' FROM FILE EMBASE

=> d iall 1-8; d ibib ed abs hitind 9-27; d iall abeq tech 28-34; d iall 35-62; fil hom

L122 ANSWER 1 OF 62 MEDLINE on STN
ACCESSION NUMBER: 2006567744 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16837150
TITLE: Enhancement of follicular delivery of finasteride by liposomes and niosomes 1. In vitro permeation and in vivo deposition studies using hamster flank and ear models.
AUTHOR: Tabbakhian Majid; Tavakoli Naser; Jaafari Mahmoud Reza; Daneshamouz Saeid
CORPORATE SOURCE: Department of Pharmaceutics, School of Pharmacy and Isfahan Pharmaceutical Sciences Research Center, Isfahan University of Medical Sciences, Isfahan, Iran..
tabbakhian@pharm.mui.ac.ir
SOURCE: International journal of pharmaceutics, (2006 Oct 12) Vol. 323, No. 1-2, pp. 1-10. Electronic Publication: 2006-05-26.
Journal code: 7804127. ISSN: 0378-5173.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200612
ENTRY DATE: Entered STN: 26 Sep 2006
Last Updated on STN: 28 Dec 2006
Entered Medline: 27 Dec 2006

ABSTRACT:
Finasteride is indicated orally in the treatment of androgenetic alopecia and some other pilosebaceous unit (PSU) disorders. We wished to investigate whether topical application of finasteride-containing vesicles (liposomes and niosomes) could enhance drug concentration at the PSU, as compared to finasteride hydroalcoholic solution (HA). Liposomes consisted of phospholipid (dimyristoyl phosphatidylcholine (DMPC) or egg lecithin):cholesterol:dicetylphosphate (8:2:1, mole ratio). Niosomes were comprising non-ionic surfactant (polyoxyethylene alkyl ethers (Brij series) or sorbitan monopalmitate):cholesterol:dicetylphosphate (7:3:1, mole ratio). Vesicles were prepared by the film hydration technique and characterized with regard to the size, drug entrapment efficiency and gel-liquid transition temperature (T(c)). In vitro permeation of (3)H-finasteride through hamster flank skin was faster from hydroalcoholic solution (0.13 microg/cm(2)h) compared to vesicles (0.025-0.058 microg/cm(2)h). In vivo deposition of (3)H-finasteride vesicles in hamster ear showed that liquid-state vesicle, i.e. those made of DMPC or Brij97:Brij76 (1:1), were able to deposit 2.1 or 2.3% of the applied dose to the PSU, respectively. This was significantly higher than drug deposition by gel-state vesicles (0.35-0.51%) or HA (0.76%). Both in vitro permeation and in vivo deposition studies, demonstrated the potentials of liquid-state liposomes and niosomes for successful delivery of finasteride to the PSU.

CONTROLLED TERM: Check Tags: Male
Administration, Cutaneous
Animals
Cholesterol: CH, chemistry
Cricetinae

Drug Carriers
*Drug Delivery Systems: MI, methods
Ear, External: ME, metabolism
Enzyme Inhibitors: AD, administration & dosage
Enzyme Inhibitors: CH, chemistry
Enzyme Inhibitors: PK, pharmacokinetics
Finasteride: AD, administration & dosage
Finasteride: CH, chemistry
*Finasteride: PK, pharmacokinetics
Liposomes
Mesocricetus
Particle Size
Phosphatidylcholines: CH, chemistry
Phosphoric Acid Esters: CH, chemistry
Plant Oils: CH, chemistry
Polyethylene Glycols: CH, chemistry
Skin: ME, metabolism
*Skin Absorption

CAS REGISTRY NO.: 2197-63-9 (dicetylphosphate); 57-88-5 (Cholesterol); 9004-98-2 (polyethylene glycol oleyl ether); 98319-26-7 (Finasteride)

CHEMICAL NAME: 0 (Drug Carriers); 0 (Enzyme Inhibitors); 0 (Liposomes); 0 (Phosphatidylcholines); 0 (Phosphoric Acid Esters); 0 (Plant Oils); 0 (Polyethylene Glycols)

L122 ANSWER 2 OF 62 MEDLINE on STN
ACCESSION NUMBER: 2005457314 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16124605
TITLE: Preparation of transfersomes of vincristine sulfate and study on its prcutaneous penetration.
AUTHOR: Lu Yi; Hou Shi-Xiang; Chen Tong; Sun Yi-Yi; Yang Ben-Xia; Yuan Zi-Yan
CORPORATE SOURCE: College of Pharmacy, Sichuan University, Chengi 610041, China.. toluyi@163.com
SOURCE: Zhongguo Zhong yao za zhi = Zhongguo zhongyao zazhi = China journal of Chinese materia medica, (2005 Jun) Vol. 30, No. 12, pp. 900-3.
Journal code: 8913656. ISSN: 1001-5302.
PUB. COUNTRY: China
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200610
ENTRY DATE: Entered STN: 30 Aug 2005
Last Updated on STN: 15 Dec 2005
Entered Medline: 3 Oct 2006

ABSTRACT:
OBJECTIVE: To select the best preparation method of vincristine transfersomes (VCR-T) and predict its possibility of being a new formulation of VCR. METHOD: Orthogonal design was used to optimize the preparation methods on the basis of single factor pretests; and the permeation tests in vitro were performed in modified Franz diffusion cells. RESULT: The optimum formula was: pH was equal to 7.3, the ratio of lecithin to sodium deoxycholate is 70/20, the weight of VCR is 10 mg, hydrating time is 30 minutes. The optimized solution was light yellow and transparent colloid solution. The VCR-T are spherical and smooth with average diameters of 94 nm and an encapsulation ratio of 90%. The test in vitro showed that VCR-T could permeat through mouse skin at zero rate with the cumulative penetrating quality amounting to 63.8%. CONCLUSION: Transfersomes may become a promising carrier of VCR for clinic use.
CONTROLLED TERM: **Administration, Cutaneous**

Animals
*Antineoplastic Agents, Phytogenic: AD, administration & dosage
Antineoplastic Agents, Phytogenic: PK, pharmacokinetics
Deoxycholic Acid
Drug Carriers
English Abstract
Hydrogen-Ion Concentration
Mice
Particle Size
Phosphatidylcholines
Research Support, Non-U.S. Gov't
Skin Absorption
*Technology, Pharmaceutical: MT, methods
*Vincristine: AD, administration & dosage
Vincristine: PK, pharmacokinetics

CAS REGISTRY NO.: 57-22-7 (Vincristine); 83-44-3 (Deoxycholic Acid)
CHEMICAL NAME: 0 (Antineoplastic Agents, Phytogenic); 0 (Drug Carriers); 0 (Phosphatidylcholines)

L122 ANSWER 3 OF 62 MEDLINE on STN
ACCESSION NUMBER: 2005517690 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 16191847
TITLE: Induction of a hardening phenomenon by repeated application of SLS: analysis of lipid changes in the stratum corneum.
AUTHOR: Heinemann Christian; Paschold Christiane; Fluhr Joachim; Wigger-Alberti Walter; Schliemann-Willers Sibylle; Farwanah Hany; Raith Klaus; Neubert Reinhard; Elsner Peter
CORPORATE SOURCE: Department of Dermatology, Friedrich-Schiller-University Jena, Germany.. christian.heinemann@derma.uni-jena.de
SOURCE: Acta dermato-venereologica, (2005) Vol. 85, No. 4, pp. 290-5.
Journal code: 0370310. ISSN: 0001-5555.
PUB. COUNTRY: Norway
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200510
ENTRY DATE: Entered STN: 30 Sep 2005
Last Updated on STN: 14 Oct 2005
Entered Medline: 13 Oct 2005

ABSTRACT:
Adaptation of the skin to repeated influence of exogenous irritants is called the hardening phenomenon. We investigated the stratum corneum lipid composition before and after induction of a hardening phenomenon. Irritant contact dermatitis was induced in 23 non-atopic volunteers by repeated occlusive application of 0.5% **sodium lauryl sulfate** (SLS) over 3 weeks. At 3, 6 and 9 weeks after irritation, the SLS responses of pre-irritated skin and normal skin were compared. The horny layer lipid composition (ceramides 1-7, cholesterol and free fatty acids) was assessed before irritation and 3, 6 and 9 weeks after irritation. During the first 2 weeks of irritation the transepidermal water loss increased continuously and seemed to decrease during the third week (effect of adaptation). The barrier function of pre-irritated sites was more stable to SLS challenge. Three weeks after irritation, there was a significant increase of ceramide 1 ($p<0.001$). The only volunteer without hardening phenomenon showed no increase of ceramide 1. Ceramide 1 seems to play a key role as a protection mechanism against repeated irritation.
CONTROLLED TERM: Check Tags: Female; Male

Administration/Cutaneous
Adolescent
Adult
Case-Control Studies
Ceramides: ME, metabolism
Cholesterol: ME, metabolism
Chromatography, High Pressure Liquid
*Dermatitis, Irritant: ET, etiology
Dermatitis, Irritant: ME, metabolism
Dermatitis, Irritant: PA, pathology
Fatty Acids: ME, metabolism
Humans
Irritants: AD, administration & dosage
*Irritants: PD, pharmacology
*Lipid Metabolism
*Skin: DE, drug effects
Skin: ME, metabolism
Skin: PA, pathology
Sodium Dodecyl Sulfate: AD, administration & dosage
*Sodium Dodecyl Sulfate: PD, pharmacology
Water Loss, Insensible: DE, drug effects

CAS REGISTRY NO.: **151-21-3 (Sodium Dodecyl Sulfate)**; 57-88-5 (Cholesterol)
CHEMICAL NAME: 0 (Ceramides); 0 (Fatty Acids); 0 (Irritants)

L122 ANSWER 4 OF 62 MEDLINE on STN
ACCESSION NUMBER: 2000159245 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10692644
TITLE: Lecithin vesicular carriers for transdermal delivery of cyclosporin A.
AUTHOR: Guo J; Ping Q; Sun G; Jiao C
CORPORATE SOURCE: Department of Pharmaceutics, China Pharmaceutical University, Nanjing, People's Republic of China.
SOURCE: International journal of pharmaceutics, (2000 Jan 25) Vol. 194, No. 2, pp. 201-7.
Journal code: 7804127. ISSN: 0378-5173.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200003
ENTRY DATE: Entered STN: 20 Mar 2000
Last Updated on STN: 20 Mar 2000
Entered Medline: 9 Mar 2000

ABSTRACT:
Two kinds of vesicles with and without the presence of sodium cholate (flexible vesicles and conventional vesicles) were prepared, using cyclosporin A as model drug. When applied onto the excised abdominal skin of mice non-occlusively, the enhancing effects of vesicles on the penetration of cyclosporin A were assessed by an in vitro permeation technique. The effect of sodium cholate micelles was also studied. In vivo study was carried out by topical application of vesicles onto the mice skin and drug serum concentration was detected. Results showed that after 8 h of administration, flexible vesicles transported 1.16 microg of cyclosporin A through per cm(2) mice skin and amounted to 1.88 microg 24 h later. The residual amount in the skin was 1.78+/-0.51 microg/cm(2). However, flexible vesicles failed to transport measurable amount of drug through pre-hydrated skin while deposited 2.39+/-0.26 microg/cm(2) into the skin. Conventional vesicles failed to transfer cyclosporin A into the receiver while accumulated 0. 72+/-0.19 microg/cm(2) of drug in the skin. Furthermore, 1 and 40% sodium cholate micelles precluded the

transport of cyclosporin A. In vivo studies indicated that with the application of flexible vesicles, serum drug concentration of 53.43+/-9.24 ng/ml was detected 2 h later. After the stratum corneum of mouse skin has been destroyed by shaving, flexible vesicles transferred large amount of drug into blood, up to 187.32+/-53.21 ng/ml after 1 h of application. Conventional vesicles failed to deliver measurable amount of drug into the blood under normal skin condition. In conclusion, flexible vesicle is better than conventional vesicle as the carrier for transdermal delivery of cyclosporin A. Penetration and fusion have been suggested to be two major functional mechanisms. Hydration is detrimental to the enhancement effect. Stratum corneum constitutes main barrier to the transport of lipophilic cyclosporin A.

CONTROLLED TERM:
Administration, Cutaneous
Animals
*Cyclosporine: AD, administration & dosage
Cyclosporine: PK, pharmacokinetics
Drug Carriers
*Immunosuppressive Agents: AD, administration & dosage
Mice
Micelles
***Phosphatidylcholines: AD, administration & dosage**
Research Support, Non-U.S. Gov't
*Skin: ME, metabolism
Sodium Cholate: AD, administration & dosage

CAS REGISTRY NO.: 361-09-1 (Sodium Cholate); 59865-13-3 (Cyclosporine)
CHEMICAL NAME: 0 (Drug Carriers); 0 (Immunosuppressive Agents); 0 (Phosphatidylcholines)

L122 ANSWER 5 OF 62 MEDLINE on STN
ACCESSION NUMBER: 1999293467 MEDLINE Full-text
DOCUMENT NUMBER: PubMed ID: 10365133
TITLE: Formulation of interleukin-2 and interferon-alpha containing ultradeformable carriers for potential transdermal application.
AUTHOR: Hofer C; Gobel R; Deering P; Lehmer A; Breul J
CORPORATE SOURCE: Urologische Klinik und Poliklinik, Technischen Universitat Munchen, Germany.
SOURCE: Anticancer research, (1999 Mar-Apr) Vol. 19, No. 2C, pp. 1505-7.
Journal code: 8102988. ISSN: 0250-7005.
PUB. COUNTRY: Greece
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199906
ENTRY DATE: Entered STN: 14 Jul 1999
Last Updated on STN: 3 Mar 2000
Entered Medline: 29 Jun 1999

ABSTRACT:
INTRODUCTION: Transfersomes (TF) are new highly deformable hydrophilic lipid vesicles, which are able to spontaneously penetrate the skin barrier because of their characteristics. Transfersomes are able to transport non-invasively low as well as high molecular weight molecules into the body. We describe the formulation and several biological characteristics of Interleukin-2 and Interferon-a containing TF. MATERIAL AND METHODS: TF contain natural phosphatidylcholine and sodium cholate. Recombinant human IL-2 and human hybrid interferon-alpha A/D were added to TF and incubated for 24 hours at 4 degrees C. Immunotransfersomes were isolated from free IL-2 and IFN by filtration (Centrisart, Sartorius). Biological activity of immunotransfersomes was measured by CTLL-cell-assay for IL-2 and by A549--EMCV-assay for IFN, concentrations of proteins by ELISA. RESULTS: It has been possible to

incorporate a high amount of IL-2 and IFN in TF (75-80%). Incorporated IL-2 and IFN were biological active. The increase of the proportion of lipid to protein to 90.9/1 led to growing probability of association. CONCLUSION: We were able to show, that IL-2 as well as IFN is trapped by transfersomes in biological active form and in sufficient concentrations for immunotherapy. In upcoming experiments these IL-2 and IFN-containing TF are used for a transdermal approach in the murine RENCA cell line model.

CONTROLLED TERM: **Administration, Cutaneous**
Biological Assay
Cholic Acid
Drug Carriers
Enzyme-Linked Immunosorbent Assay
Humans
Interferon Type I, Recombinant: AD, administration & dosage
*Interferon-alpha: AD, administration & dosage
*Interleukin-2: AD, administration & dosage
Liposomes
Phosphatidylcholines
Protein Hybridization
Recombinant Proteins: AD, administration & dosage

CAS REGISTRY NO.: 81-25-4 (Cholic Acid)

CHEMICAL NAME: 0 (Drug Carriers); 0 (Interferon Type I, Recombinant); 0 (Interferon-alpha); 0 (Interleukin-2); 0 (Liposomes); 0 (Phosphatidylcholines); 0 (Recombinant Proteins)

L122 ANSWER 6 OF 62 MEDLINE on STN

ACCESSION NUMBER: 1998119686 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 9459598

TITLE: Ultraflexible vesicles, Transfersomes, have an extremely low pore penetration resistance and transport therapeutic amounts of insulin across the intact mammalian skin.

AUTHOR: Cevc G; Gebauer D; Stieber J; Schatzlein A; Blume G

CORPORATE SOURCE: Medical Biophysics, Clinics r.d.I., The Technical University of Munich, Germany.

SOURCE: Biochimica et biophysica acta, (1998 Jan 19) Vol. 1368, No. 2, pp. 201-15.
Journal code: 0217513. ISSN: 0006-3002.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199802

ENTRY DATE: Entered STN: 6 Mar 1998
Last Updated on STN: 29 Jan 1999
Entered Medline: 24 Feb 1998

ABSTRACT:
New vehicles for the non-invasive delivery of agents are introduced. These carriers can transport pharmacological agents, including large polypeptides, through the permeability barriers, such as the intact skin. This capability depends on the self-regulating carrier deformability which exceeds that of the related but not optimized lipid aggregates by several orders of magnitude. Conventional lipid suspensions, such as standard liposomes or mixed lipid micelles, do not mediate a systemic biological effect upon epicutaneous applications. In contrast to this, the properly devised adaptable carriers, when administered on the intact skin, transport therapeutic amounts of biogenic molecules into the body. This process can be nearly as efficient as an injection needle, as seen from the results of experiments in mice and humans with the insulin-carrying vesicles. The carrier-mediated transcutaneous insulin delivery is unlikely to involve shunts, lesions or other types of skin

damage. Rather than this, insulin is inferred to be transported into the body between the intact skin cells with a bio-efficiency of at least 50% of the s.c. dose action.

CONTROLLED TERM: Check Tags: Female
Administration, Cutaneous
Adult
Animals
Blood Glucose: AN, analysis
C-Peptide: BL, blood
Cholic Acid
Cholic Acids
Drug Carriers
Humans
*Insulin: AD, administration & dosage
Insulin: BL, blood
Insulin: PK, pharmacokinetics
*Liposomes: CH, chemistry
Mice
Mice, Inbred Strains
Micelles
Permeability
Phosphatidylcholines
Rats
Recombinant Proteins
Research Support, Non-U.S. Gov't
*Skin: ME, metabolism

CAS REGISTRY NO.: 11061-68-0 (Insulin); 81-25-4 (Cholic Acid)

CHEMICAL NAME: 0 (Blood Glucose); 0 (C-Peptide); 0 (Cholic Acids); 0 (Drug Carriers); 0 (Liposomes); 0 (Phosphatidylcholines); 0 (Recombinant Proteins)

L122 ANSWER 7 OF 62 CABA COPYRIGHT 2007 CABI on STN DUPLICATE 4

ACCESSION NUMBER: 2004:108129 CABA Full-text

DOCUMENT NUMBER: 20043084486

TITLE: Stability and **transdermal** absorption of topical amphotericin B liposome formulations

AUTHOR: Manosroi, A.; Kongkaneramit, L.; Manosroi, J.

CORPORATE SOURCE: Pharmaceutical-Cosmetics Raw Materials and Natural Products Research and Development Center, Faculty of Pharmacy, Institute for Science and Technology Research and Development, Chiang Mai University, Chiang Mai 50200, Thailand. pmpti005@chiangmai.ac.th

SOURCE: International Journal of Pharmaceutics, (2004) Vol. 270, No. 1/2, pp. 279-286.
Publisher: Elsevier Science Ltd. Oxford
ISSN: 0378-5173
URL: http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T7W-4B7YFY7-2&_user=10&_handle=B-WA-A-A-BV-MsSAYVA-UUW-AUYEWDWVUC-AUYZYCBWUC-VCCAYCBCV-BV-U&_fmt=summary&_coverDate=02%2F11%2F2004&_rdoc=27&_orig=browse&_srch=%23toc%235069%232004%2399729998%23476024!&_cdi=5069&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=1bd1b0d172ae585b56e48fdad64f6705
DOI: 10.1016/j.ijpharm.2003.10.031

PUB. COUNTRY: United Kingdom

DOCUMENT TYPE: Journal

LANGUAGE: English

ENTRY DATE: Entered STN: 2 Jul 2004
Last Updated on STN: 2 Jul 2004

ABSTRACT:
The aim of this study was to characterize the stability and transdermal absorption of amphotericin B (AmB: 0.05 mg/mg lipid) in hydrogenated soya ***phosphatidylcholine*** /**cholesterol**/charged lipid {dicetyl phosphate (-) or stearylamine (+)} liposomes at molar ratios of 1:1:0, 7:2:0, 7:2:1(-) and 7:2:1(+). The AmB contents in liposomes were determined by HPLC with UV detection at 382 nm. Stabilities of AmB in liposome formulations were compared with those in solution and powder forms, during storage at 4, 30 and 45[deg]C for 90 days. Absorption studies of AmB across the rat skin were conducted, using vertical Franz diffusion cells at 37[deg]C for 24 h. The slowest degradation was observed in the positive liposome (7:2:1(+)AmB), with shelf life of 1 year (30[deg]C). In comparison, the shelf lives of AmB in solution and powder were 4 and 14 days, respectively. AmB in positive liposomes seemed to demonstrate the highest flux in stratum corneum (58 ng/cm2/h), while the highest flux in viable epidermis (23 ng/cm2/h) was observed in negative liposomes. AmB entrapped in charged liposomes showed sustained skin absorption. The positively charged liposome might be the best formulation for AmB, due to its higher stability than other formulations.

CLASSIFICATION: HH405 Pesticides and Drugs; Control (New March 2000); VV210 Prion, Viral, Bacterial and Fungal Pathogens of Humans (New March 2000); VV730 Pharmacology (New March 2000)
SEQUENCE CODE: 7N; 0L; CA; HE; PA
BROADER TERM: Muridae; rodents; mammals; vertebrates; Chordata; animals; small mammals
CONTROLLED TERM: absorption; amphotericin B; animal models; antifungal agents; cutaneous application; drug delivery systems; liposomes; mycoses
CAS REGISTRY NUMBER: 1397-89-3
ORGANISM NAME: rats

L122 ANSWER 8 OF 62 CABA COPYRIGHT 2007 CABI on STN
ACCESSION NUMBER: 2004:115978 CABA Full-text
DOCUMENT NUMBER: 20043091805
TITLE: In vitro **skin permeation** and retention of paromomycin from liposomes for topical treatment of the cutaneous leishmaniasis
AUTHOR: Ferreira, L. S.; Ramaldes, G. A.; Nunan, E. A.; Ferreira, L. A. M.
CORPORATE SOURCE: Department of Pharmaceutics, Faculty of Pharmacy, Federal University of Minas Gerais (UFMG), Belo Horizonte, Minas Gerais, 30.180-112, Brazil.
SOURCE: Drug Development and Industrial Pharmacy, (2004) Vol. 30, No. 3, pp. 289-296.
Publisher: Marcel Dekker, Inc. Monticello
ISSN: 0363-9045
URL: http://www.dekker.com/servlet/product/DOI/101081DDC120030423
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Aug 2004
Last Updated on STN: 6 Aug 2004

ABSTRACT:
Paromomycin (PA), a very hydrophilic antibiotic, has been tested as an alternative topical treatment against cutaneous leishmaniasis (CL). Although this treatment has shown promising results, it has not been successful in accelerating the recovery in most cases. This could be attributed to the low ***skin*** **penetration** of PA. Liposomal formulations usually

provide sustained and enhanced drug levels in skin. The aim of this study was to prepare liposomal formulations containing PA and to investigate their potential as topical delivery systems of this antileishmanial. Large multilamellar vesicles (MLVs) were prepared by conventional solvent evaporation method. Large unilamellar vesicles (LUVs) were prepared by reverse-phase evaporation method. The lipids used were soyabean **phosphatidylcholine** (PC) and PC:**cholesterol** (CH) (molar ratio 1:1). The **skin** ***permeation*** experiments across stripped and normal hairless mice skin were performed in modified Franz diffusion cells. The PA entrapment in LUV liposomes (20.4[plusmn]2.2%) was higher than that observed for MLV liposomes (7.5[plusmn]0.9%). Drug entrapment was 41.9[plusmn]6.2% and 27.2[plusmn]2.4% for PC and PC:CH LUV, respectively. The **skin permeation** was 1.55[plusmn]0.31%, 1.29[plusmn]0.40%, 0.20[plusmn]0.08%, and 0.50[plusmn]0.19% for PC LUV, PC:CH LUV, empty LUV+PA and aqueous solution, respectively. Controlled topical delivery, across stripped skin, was observed for PA entrapped in LUV liposomes.

CLASSIFICATION:	HH420 Pesticides and Drugs; Chemistry and Formulation (New March 2000); VV220 Protozoan, Helminth and Arthropod Parasites of Humans (New March 2000); VV400 Animal Models of Human Diseases (New March 2000); VV450 Animal and in-vitro Models for Pharmaceuticals (New March 2000)
SEQUENCE CODE:	0Y; 7N; 2T; CA; HE; PA
BROADER TERM:	Trypanosomatidae; Kinetoplastida; Sarcomastigophora; Protozoa; invertebrates; animals; Homo; Hominidae; Primates; mammals; vertebrates; Chordata; Muridae; rodents; small mammals
CONTROLLED TERM:	animal models; antibiotics; cutaneous leishmaniasis; drug delivery systems; drug therapy; human diseases; in vitro; laboratory animals; liposomes; paromomycin; permeability
CAS REGISTRY NUMBER:	7542-37-2
ORGANISM NAME:	Leishmania; man; mice

L122 ANSWER 9 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1

ACCESSION NUMBER:	2006:888479 CAPLUS Full-text
DOCUMENT NUMBER:	145:278329
TITLE:	Compositions comprising polymer and permeation enhancer for **transdermal** delivery of drugs
INVENTOR(S):	Barman, Shikha P.; Farnham, Hannah; Roode, Lauren K.; Wan, Anna
PATENT ASSIGNEE(S):	Sontra Medical Corporation, USA
SOURCE:	PCT Int. Appl., 51pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006091719	A2	20060831	WO 2006-US6385	20060223

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,

MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-655348P P 20050223

ED Entered STN: 31 Aug 2006

AB Improved methods for transdermal transport of drug formulations are described herein. Formulations designed to enhance transport of therapeutic levels of topically applied drugs into the systemic circulation, methods of making the formulations are also described herein. The formulations contain at least one active agent to be delivered and at least one skin permeation enhancer in a polymeric hydrogel, and optional addnl. excipients. Methods for enhancing transport of formulations into and through the skin include: (a) pretreatment of the skin with a hydrating solution, (b) phys. permeation of the stratum corneum by low frequency ultrasound (administered by a sono-permeation device, Sonoprep), (c) topical application of a formulation containing the bioactive mol., and optionally (d) application of an elec. p.d. that forces ionized drugs through the skin. Optionally, the formulation contains permeation-enhancing agents. The method may be used with the formulations described herein or with other formulations for topical administration. In a preferred embodiment, the active agent to be delivered is a drug. Preferably the drug is a local anesthetic, such as lidocaine. For example, formulation was prepared containing lidocaine hydrochloride 4%, Pluronic F127 18%, benzyl alc. 2% and PBS 76 %.

IC ICM A61K

CC 63-6 (Pharmaceuticals)

ST polymer permeation enhancer **transdermal**

IT Immunostimulants
(adjuvants; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Glycosides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(alkyl; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Candida albicans
(antigens; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(benzyl; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Anesthetics
Electroporation
Iontophoresis
Permeation enhancers
Vaccines
(compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Alcohols, biological studies
Bile salts
Ceramides
Epoxides
Glycols, biological studies
Lipids, biological studies
Nucleic acids
Peptides, biological studies

Phospholipids, biological studies
Polymers, biological studies
Polyoxyalkylenes, biological studies
Polysaccharides, biological studies
Proteins
Sphingolipids
Terpenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Ketones, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cyclic, N-alkylaza-; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Micelles
(disrupters and enhancers; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(emulsions; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(gels; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Allergy
(hypersensitivity; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(liqs., dispersions; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Anesthetics
(local; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(long-chain; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(ointments, creams; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(pellets; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(solns.; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(sprays; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(suspensions; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Toxoids
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(tetanus, antigens; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(topical; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT Drug delivery systems
(**transdermal**, patch; compns. comprising polymer and

permeation enhancer for **transdermal** delivery of drugs)

IT 51-43-4, Epinephrine 56-81-5D, Glycerol, derivs. 57-88-5, Cholesterol, biological studies 58-95-7, Vitamin E-acetate 67-68-5, Dimethyl sulfoxide, biological studies 68-12-2, Dimethylformamide, biological studies 73-78-9, Lidocaine hydrochloride 110-27-0, Isopropyl myristate 122-32-7, Triolein 127-19-5, N,N-Dimethylacetamide 137-58-6, Lidocaine 145-42-6, Sodium taurocholate 616-45-5, 2-Pyrrolidone 872-50-4, N-Methylpyrrolidone, biological studies 3445-11-2 9002-96-4, Vitamin E TPGS 25322-68-3D, Polyethylene glycol, derivs. 59227-89-3, 1-Dodecylazacycloheptan-2-one
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

IT 1406-18-4, Vitamin E
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pegylated; compns. comprising polymer and permeation enhancer for **transdermal** delivery of drugs)

L122 ANSWER 10 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2006:56990 CAPLUS Full-text
DOCUMENT NUMBER: 144:135453
TITLE: Agents and methods for enhancement of **transdermal** transport
INVENTOR(S): Kellogg, Scott C.; Barman, Shikha; Roode, Lauren; Farnham, Hannah; Moran, Sean; Mitragotri, Samir S.; Kost, Joseph; Warner, Nicholas F.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S. Ser. No. 974,963.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006015058	A1	20060119	US 2005-65278	20050225
CA 2317777	A1	19990715	CA 1999-2317777	19990108
CA 2317777	C	20050503		
EP 1045714	A1	20001025	EP 1999-901378	19990108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AU 740999	B2	20011122	AU 1999-21091	19990108
JP 2002500075	T	20020108	JP 2000-527303	19990108
WO 2000035357	A1	20000622	WO 1999-US30065	19991217
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
JP 2002532130	T	20021002	JP 2000-587679	19991217
WO 2001070330	A2	20010927	WO 2001-US8489	20010316
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,				

CODEN: LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2003100846	A1	20030529	US 2002-979096 20020311
US 7066884	B2	20060627	
WO 2006091877	A2	20060831	WO 2006-US6712 20060227

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

US 1998-70813P	P	19980108
US 1998-112953P	P	19981218
US 1999-227623	A2	19990108
US 1999-142941P	P	19990712
US 1999-142950P	P	19990712
US 1999-142951P	P	19990712
US 1999-142975P	P	19990712
WO 1999-US30065	W	19991217
WO 2001-US8489	W	20010316
US 2001-868442	A2	20010724
US 2002-979096	A2	20020311
US 2004-974963	A2	20041028
WO 1999-US437	W	19990108
US 2000-189971P	P	20000317
US 2005-65278	A	20050225

ED Entered STN: 20 Jan 2006

AB The invention according to an exemplary embodiment relates to a method for transporting a substance across a biol. membrane comprising the steps of (i) applying a delipidation agent to a portion of the biol. membrane, (ii) applying a hydration agent to the portion of the biol. membrane, (iii) sonicating the portion of the biol. membrane, and (iv) transporting the substance across the biol. membrane. The step of applying the delipidation agent may be carried out prior to or simultaneously with the step of applying the hydration agent. The hydration agent may be applied before, during, or after the sonication step. The methods according to exemplary embodiments of the invention can provide improved transdermal transport in applications such as continuous analyte extraction and anal. and transdermal delivery of drugs and vaccines. Thus, sonication was achieved in a successful and reproducible manner when skin of human volunteers was pretreated with an alc. wipe (70% isopropanol) for solvation and stripping of skin surface lipids, followed by hydration of the epidermal corneocytes using a glycerol wipe (5% glycerol).

INCL 604022000; 600573000
CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 9
ST delipidation hydration sonication membrane **transdermal** transport drug vaccine; glucose sensor membrane delipidation hydration sonication
IT Natural products, pharmaceutical
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aloe; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Body fluid
(anal. of; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Biological transport
Blood analysis
Buffers
Detergents
Electrolytes
Glucose sensors
Human
Hydration, physiological
Membrane, biological
Micelles
Permeation enhancers
Physiological saline solutions
Skin
Sonication
Sound and Ultrasound
Surfactants
Ultrasonic transducers
Vaccines
(delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Alcohols, biological studies
Bile salts
Fatty acids, biological studies
Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(delipidation; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Biosensors
(electrochem.; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Solvents
(liposol.; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Anesthetics
(local; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Amphiphiles
(micelle-forming; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Polymers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(micelle-forming; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Physiological saline solutions
(phosphate-buffered; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT **Lecithins**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(soya; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT Drug delivery systems
(**transdermal**; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT 66565-61-5, Lipogel
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Lippo Gel; delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT 50-99-7, D-Glucose, analysis
RL: ANT (Analyte); ANST (Analytical study)
(delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT 9001-37-0, Glucose oxidase
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT 50-21-5, Lactic acid, biological studies 51-45-6, Histamine, biological studies 56-81-5, Glycerol, biological studies 57-09-0, Hexadecyltrimethylammonium bromide **57-88-5**, Cholesterol, biological studies 58-95-7, Vitamin E acetate 60-00-4, EDTA, biological studies 60-33-3, Linoleic acid, biological studies 64-17-5, Ethyl alcohol, biological studies 67-63-0, Isopropanol, biological studies **67-68-5**, Dimethyl sulfoxide, biological studies 97-78-9 98-79-3, Pyrrolidone carboxylic acid 126-92-1, Sodium octyl sulfate 145-42-6, Sodium taurocholate **151-21-3**, Sodium lauryl sulfate, biological studies 1119-94-4, Dodecyltrimethylammonium bromide 1119-97-7, Tetradecyltrimethylammonium bromide 1310-73-2, Sodium hydroxide, biological studies 1338-39-2, Span 20 2083-68-3, Octyltrimethylammonium bromide 7447-40-7, Potassium chloride, biological studies 7647-14-5, Sodium chloride, biological studies 7732-18-5, Water, biological studies 7778-53-2, Potassium phosphate 9002-92-0, Brij 30 9002-93-1, Triton X-100 9004-61-9, Hyaluronic acid 9005-65-6, Tween 80 9016-45-9, Igepal CO 210 25322-68-3, Polyethylene glycol 59227-89-3, Azone 104909-82-2 207234-02-4 691397-13-4, Pluronic
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

IT 137-58-6, Lidocaine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delipidation, hydration and sonication of biol. membrane for enhancement of **transdermal** transport)

L122 ANSWER 11 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2005:546880 CAPLUS Full-text
DOCUMENT NUMBER: 143:83457
TITLE: compositions facilitating translocation of therapeutic effector across biol. barrier comprising hydrophobic agent, counter ion, penetrating peptide, and/or protease inhibitor
INVENTOR(S): Ben-Sasson, Shmuel A.; Cohen, Einat
PATENT ASSIGNEE(S): Israel
SOURCE: U.S. Pat. Appl. Publ., 59 pp., Cont.-in-part of U.S. Ser. No. 665,184.
CODEN: USXXCO
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005136103	A1	20050623	US 2004-942300	20040916
US 2004146549	A1	20040729	US 2003-665184	20030917
US 7115707	B2	20061003		
US 2005058702	A1	20050317	US 2003-664989	20030917
PRIORITY APPLN. INFO.:			US 2003-503615P	P 20030917
			US 2003-664989	A2 20030917
			US 2003-665184	A2 20030917
			US 2002-355396P	P 20020207
			WO 2003-IB968	A2 20030207

OTHER SOURCE(S): MARPAT 143:83457
ED Entered STN: 24 Jun 2005
AB This invention relates to novel pharmaceutical compns. capable of facilitating penetration of at least one effector across biol. barriers. The compns. may comprise therapeutic effectors, hydrophobic agents, counter ions, protein stabilizers, penetrating peptides, surface active agents, and protease inhibitors. Disclosed are methods for producing the compns. of the invention, and their uses. The invention also relates to methods of treating or preventing diseases by administering these compns. to affected subjects, and methods of vaccination.
IC ICM A61K038-18
ICS A61K031-704; A61K009-70; A61K031-66; A61K031-7024
INCL 424449000; 514012000; 514037000; 514102000; 514053000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 3, 14, 15
IT Amides, biological studies
Bile salts
Glycosaminoglycans, biological studies
Lecithins
Polyoxyalkylenes, biological studies
Tocopherols
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. for facilitating translocation of therapeutic effector across biol. barrier comprising hydrophobic agent, counter ion, penetrating peptide, and/or protease inhibitor)
IT Drug delivery systems
(**transdermal**; compns. for facilitating translocation of therapeutic effector across biol. barrier comprising hydrophobic agent, counter ion, penetrating peptide, and/or protease inhibitor)
IT 50-81-7, Ascorbic acid, biological studies 64-17-5, Ethanol, biological studies 67-63-0, Isopropanol, biological studies **67-68-5**, DMSO, biological studies 68-12-2, DMF, biological studies 71-23-8, Propanol, biological studies 71-36-3, n-Butanol, biological studies 78-83-1, Isobutanol, biological studies 99-76-3, Methyl paraben 120-47-8, Ethyl paraben 123-51-3, Isoamyl alcohol 1338-39-2, Sorbitan monolaurate 1338-43-8, Sorbitan monooleate 7732-18-5, Water, biological studies 9005-49-6, Heparin, biological studies 9035-81-8, Trypsin inhibitor 12441-09-7D, Sorbitan, fatty acid esters 25322-68-3D, Polyethylene glycol, fatty ethers 26266-57-9, Sorbitan monopalmitate 37205-61-1, Proteinase inhibitor 61909-81-7, Solutol HS15 79030-32-3, Terbutanol 106392-12-5, Poloxamer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. for facilitating translocation of therapeutic effector across biol. barrier comprising hydrophobic agent, counter ion, penetrating peptide, and/or protease inhibitor)

IT 151821-3, Sodium dodecyl sulfate, biological studies 2373-23-1, Dioctyl sulfosuccinate 15477-76-6, Phosphonate 45470-32-4, 1,3-Dimethylimidazolium 64111-53-1 65039-03-4, 1-Ethyl-3-methylimidazolium 80432-08-2, 1-Butyl-3-methylimidazolium 85100-82-9, 1-Hexyl-3-methylimidazolium 125867-77-8 157310-70-8, 1,2-Dimethyl-3-propylimidazolium 171058-17-6, 1-Hexyl-3-methylimidazolium chloride 178631-03-3, 1-Methyl-3-octylimidazolium 313475-49-9 343952-32-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(counter ion; compns. for facilitating translocation of therapeutic effector across biol. barrier comprising hydrophobic agent, counter ion, penetrating peptide, and/or protease inhibitor)

IT **57-88-5**, Cholesterol, biological studies **57-88-5D**, Cholesterol, derivs. 60-01-5, Tributyrin 538-23-8, Trioctanoin 621-70-5, Trihexanoin 621-71-6, Tricaprin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrophobic agent; compns. for facilitating translocation of therapeutic effector across biol. barrier comprising hydrophobic agent, counter ion, penetrating peptide, and/or protease inhibitor)

L122 ANSWER 12 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:566566 CAPLUS Full-text
DOCUMENT NUMBER: 145:51044
TITLE: Topical skin patch comprising xanthophylls
INVENTOR(S): Leonard, Todd
PATENT ASSIGNEE(S): Nu-Tein Co., Inc., USA
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006062740	A2	20060615	WO 2005-US42418	20051122
WO 2006062740	A3	20060810		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-629927P P 20041122
ED Entered STN: 15 Jun 2006
AB The present invention provides for an adhesive patch that includes a flexible backing having a front side and a back side and a formulation positioned on at least a portion of the front side of the backing, in at least a portion of the front side of the backing, or on and in at least a portion of the front side of the backing. The formulation includes xanthophylls, a solvent that dissolves the xanthophylls, and a pressure sensitive adhesive. The present invention also provides methods of using the adhesive patch (e.g., treating acne or a pimple in a mammal; exfoliating the skin surface of a mammal; and/or improving the appearance of skin surface in a mammal). The methods include

applying the adhesive patch of the present invention to a topical (e.g., skin) surface of a patient. For example, a topical patch was formulated containing glycerin 46, karaya gum 27, Aloe vera 0.97, an acrylic emulsion adhesive 14, water 2, zeaxanthin 5, lutein 5, and Q-15 0.03%, resp.

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 62

IT Aloe barbadensis
Antibacterial agents
Antimicrobial agents
Chelating agents
Cotton fibers
Detergents
Emulsifying agents
Fungicides
Nonwoven fabrics
Permeation enhancers
(topical **skin** patch comprising xanthophylls and pressure sensitive adhesive)

IT Aminoglycosides
Biopolymers
Gelatins, biological studies
Lanolin
Lecithins
Polyamide fibers, biological studies
Polyester fibers, biological studies
Polymers, biological studies
Polyolefin fibers
Polyoxyalkylenes, biological studies
Polyureas
Polyurethane fibers
Polyurethanes, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical skin patch comprising xanthophylls and pressure sensitive adhesive)

IT 56-81-5, Glycerin, biological studies 57-13-6, Urea, biological studies 57-55-6, Propylene glycol, biological studies 58-95-7, Vitamin E acetate 60-00-4, EDTA, biological studies 60-54-8, Tetracycline 67-42-5, EGTA 67-68-5, Dimethyl sulfoxide, biological studies 68-26-8, Retinol 69-72-7, Salicylic acid, biological studies 77-92-9, Citric acid, biological studies 79-10-7D, Acrylic acid, esters, polymers 94-36-0, Benzoyl peroxide, biological studies 102-29-4, Resorcinol acetate 102-76-1, Triacetin 107-21-1, Ethylene glycol, biological studies 108-05-4D, Vinyl acetate, copolymers 108-32-7, Propylene carbonate 108-46-3, Resorcinol, biological studies 110-27-0, Isopropyl myristate 110-40-7, Diethyl sebacate 111-62-6, Ethyl oleate 111-90-0, Transcutol 112-80-1, Oleic acid, biological studies 114-07-8, Erythromycin 120-40-1, Lauramide DEA 127-40-2, Lutein 142-91-6, Isopropyl palmitate 144-68-3, Zeaxanthin 302-79-4, Retinoic acid 465-42-9, Capsanthin 470-38-2, Capsorubin 471-53-4, Glycyrrhetinic acid 472-61-7, Astaxanthin 505-22-6, 1,3-Dioxane 514-78-3, Canthaxanthin 646-06-0D, 1,3-Dioxolane, C7-14-hydrocarbyl derivs. 770-35-4, Phenoxyisopropanol 872-50-4, NMP, biological studies 1317-25-5, Alcloxa 1323-39-3, Propylene glycol monostearate 1406-18-4, Vitamin E 1490-04-6, Menthol 3380-34-5, Triclosan 4353-06-4, 2-n-Nonyl-1,3-dioxolane 4602-84-0, Farnesol 5306-85-4, Dimethyl isosorbide 6938-94-9, Diisopropyl adipate 7384-98-7, Propylene glycol dicaprylate 7585-39-9, β-Cyclodextrin 7704-34-9, Sulfur, biological studies 8011-96-9, Calamine 9000-01-5, Gum acacia 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-40-2, Locust bean gum 9000-69-5, Pectin 9002-89-5, Polyvinyl alcohol

Azone 9002-92-0, Laureth-4 9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose 9004-82-4, Sodium laureth sulfate 9005-25-8, Starch, biological studies 9005-38-3, Algin 9050-36-6, Maltodextrin 11103-57-4, Vitamin A 11111-12-9D, Cephalosporin, derivs. 11138-66-2, Xanthan gum 17465-86-0, γ-Cyclodextrin 18323-44-9, Clindamycin 18472-51-0, Chlorhexidine gluconate 25322-68-3, Polyethylene oxide 25655-41-8, Povidone iodine 26099-09-2, Polymaleic acid 27119-07-9, PolyAMPS 37220-82-9, Glyceryl oleate 53824-77-4, Propylene glycol dicaprate 66676-63-9, Carboxypropyl cellulose 68171-33-5, Isopropyl isostearate 112965-21-6, Calcipotriene 132052-36-9, Q 15 478842-46-5, Vilmed M 1585W/HY 478842-60-3, Vilmed M 1585H/HY 478842-72-7, Vilmed M 1586W/HY 478842-90-9, Vilmed M 1586H/HY 478843-06-0, Vilmed M 1570 478843-37-7, Vilmed M 1573F 478843-61-7, Vilmed M 1573FH 478843-81-1, Vilmed M 1577F 478843-92-4, Vilmed M 1578F 478844-03-0, Vilmed M 1578FH
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical skin patch comprising xanthophylls and pressure sensitive adhesive)

L122 ANSWER 13 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:544863 CAPLUS Full-text
DOCUMENT NUMBER: 145:21219
TITLE: Method for treating skin disorders with xanthophylls
INVENTOR(S): Leonard, Todd
PATENT ASSIGNEE(S): Nu-Tein Co., Inc., USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006060475	A1	20060608	WO 2005-US43314	20051201
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2006122282	A1	20060608	US 2005-275007	20051201
PRIORITY APPLN. INFO.:			US 2004-633266P P	20041203

ED Entered STN: 09 Jun 2006
AB The present invention provides for a method for treating a skin disorder in a mammal inflicted with a skin disorder. The present invention also provides for a method for retarding or reversing the loss of collagen fibers, abnormal changes in elastic fibers, or deterioration of small blood vessels in sun-damaged mammalian skin. The present invention also provides for a method for exfoliating the skin surface of a mammal. The present invention also provides for a method for treating or preventing acne or a pimple in a mammal in need thereof. The methods include topically administering, to a mammal in need of

such treatment, a composition that includes xanthophylls in a nontoxic amount effective to treat the skin disorder.

CC 1-12 (Pharmacology)
Section cross-reference(s): 63

IT Acne
Antibacterial agents
Antimicrobial agents
Burn
Chelating agents
Detergents
Disinfectants
Fungicides
Human
Lupus erythematosus
Mammalia
Permeation enhancers
Seborrhea
Skin, neoplasm
Skin preparations (pharmaceutical)
Thorax
Vitiligo
Xanthomatosis
(treating **skin** disorders with xanthophylls)

IT Acetals
Lanolin
Lecithins
Retinoids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treating skin disorders with xanthophylls)

IT 56-81-5, Glycerin, biological studies 57-13-6, Urea, biological studies 57-55-6, Propylene glycol, biological studies 58-95-7, Vitamin E acetate 60-00-4, EDTA, biological studies 67-42-5, EGTA **67-68-5**, Dimethyl sulfoxide, biological studies 68-26-8, Retinol 69-72-7, Salicylic acid, biological studies 77-92-9, Citric acid, biological studies 94-36-0, Benzoyl peroxide, biological studies 100-51-6, Benzyl Alcohol, biological studies 102-29-4, Resorcinol acetate 102-76-1, Triacetin 108-32-7, Propylene Carbonate 110-27-0, Isopropyl myristate 110-40-7, Diethyl Sebacate 111-62-6, Ethyl Oleate 112-80-1, Oleic Acid, biological studies 116-31-4, Retinal 142-91-6, Isopropyl Palmitate 302-79-4, Retinoic acid 302-79-4D, Retinoic acid, derivs. and stereoisomers 471-53-4, Glycyrrhetinic acid 505-22-6, 1,3-Dioxane 646-06-0D, 1,3-Dioxolane, C7-C14-hydrocarbyl substituted derivs. 872-50-4, NMP, biological studies 1323-39-3, Propylene Glycol Monostearate 1406-18-4, Vitamin E 1490-04-6, Menthol 4353-06-4, 2-n-Nonyl-1,3-dioxolane 4602-84-0, Farnesol 5306-85-4, Dimethylisosorbide 6938-94-9, Diisopropyl Adipate 7384-98-7, Propylene Glycol Dicaprylate 7545-23-5 7704-34-9, Sulfur, biological studies 8011-96-9, Calamine 9002-92-0, Laureth-4 9004-82-4, Sodium Laureth Sulfate 11103-57-4, Vitamin A 37220-82-9, Glyceryl Oleate 53824-77-4, Propylene Glycol Dicaprate 68171-33-5, Isopropylisostearate 112965-21-6, Calcipotriene
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treating skin disorders with xanthophylls)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L122 ANSWER 14 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:13367 CAPLUS Full-text
DOCUMENT NUMBER: 144:93851
TITLE: Cosmetic compositions and methods containing a tanning

agent and liposome-encapsulated ursolic acid
INVENTOR(S): Giacomoni, Paolo Ulderico; Manirazman, Abul M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 16 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006002870	A1	20060105	US 2005-167389	20050627
WO 2006007487	A2	20060119	WO 2005-US22650	20050627
WO 2006007487	A3	20060817		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-584749P P 20040701
ED Entered STN: 06 Jan 2006
AB A composition for topical application to the skin to provide tanning, comprising a liposome encapsulated ursolic acid (URA), a tanning agent, such as dihydroxyacetone (DHA), and a cosmetically acceptable carrier, and methods of use thereof are described. Thus, a clin. study was designed to investigate the onset, intensity and tonality of self-tanning with a formulation containing a pro-penetrant Hydrolite 5 (pentylene glycol) and Merospheres (URA liposomes). The following materials were tested: (1) control, DHA nanoemulsion-based cream containing 3% DHA; (2) 3% DHA alone; (3) 3% DHA and 5% Hydrolite 5; (4) 3% DHA and 3% Merospheres; (5) 3% DHA, 5% Hydrolite 5, and 3% Merospheres. Based on the confines and conditions of this study, addition of Merospheres and Hydrolite 5 improved the self-tanning effect of 3% DHA on human skin. The formulations containing Hydrolite 5 exhibited a tan that was visually observable within one hour of treatment. Tonality of all formulations was within the Natural Universe of Tan and Natural of Color.
INCL 424059000; 424450000
CC 62-4 (Essential Oils and Cosmetics)
IT Human
Permeation enhancers
Skin
Suntanning agents
(suntanning compns. containing dihydroxyacetone, liposome-encapsulated ursolic acid, and **penetration** enhancer)
IT **Lecithins**
Polyoxyalkylenes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(suntanning compns. containing dihydroxyacetone, liposome-encapsulated ursolic acid, and penetration enhancer)
IT 65-85-0D, Benzoic acid, C12-15 alkyl esters **67-68-5**, Dimethyl sulfoxide, biological studies 96-26-4, Dihydroxyacetone 111-29-5, Hydrolite 5 111-90-0 151-21-3, Sodium lauryl sulfate, biological studies 9005-64-5, Polyethylene glycol sorbitan monolaurate

25322-68-3, Polyethylene glycol 1000 70-95-21-6, Oleanolic DRG
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(suntanning compns. containing dihydroxyacetone, liposome-encapsulated ursolic acid, and penetration enhancer)

L122 ANSWER 15 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:823490 CAPLUS Full-text
DOCUMENT NUMBER: 145:460473
TITLE: Manufacture of hepatitis B virus vaccine liposomes for **transdermal** administration
INVENTOR(S): Hu, Jinhong; Wang, Jing; Zhu, Quangang; Liu, Jiyong; Peng, Cheng
PATENT ASSIGNEE(S): Second Military Medical University of PLA, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1813678	A	20060809	CN 2005-10110904	20051129

PRIORITY APPLN. INFO.: CN 2005-10110904 20051129
ED Entered STN: 18 Aug 2006
AB The title liposome comprises phospholipids 1-80%, cholesterol 1-50%, surfactant 0-50%, antioxidant 0-20%, preservative 0-5%, and hepatitis B virus (HBV) vaccine 0.1 ng/mL-1 g/mL. The title liposome comprises ordinary liposome, cationic liposome, lipoid liposome, and flexible liposome. The liposome can be prepared into solution, cream, and gel. The liposome preparation has the advantages of convenient administration and good immunol. effects on prevention and treatment of hepatitis B.
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
ST hepatitis B virus vaccine liposome **transdermal** soln gel cream
IT Glycerophospholipids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cephalins; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)
IT Fatty acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(esters, with sorbitan, Span; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)
IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fatty; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)
IT Drug delivery systems
(gels; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)
IT Beeswax
Drug toxicity
Human
(hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)
IT Lanolin
Lecithins

Paraffin oils
Petrolatum
Phosphates, biological studies
Phosphatidylserines
Phospholipids, biological studies
Polyoxyalkylenes, biological studies
Polysiloxanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Vaccines
(hepatitis B; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Drug delivery systems
(liposomes; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Drug delivery systems
(ointments, creams; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Drug delivery systems
(powders; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Drug delivery systems
(solns.; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Phospholipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soya; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Drug delivery systems
(**transdermal**; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT Fats and Glyceridic oils, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vegetable, hydrogenated; hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

IT 50-21-5, Lactic acid, biological studies 54-64-8, Thiomersal 56-81-5, Glycerol, biological studies 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 68-04-2, Sodium citrate 76-22-2, Camphor 87-69-4, Tartaric acid, biological studies 89-78-1, Menthol 100-51-6, Benzyl alcohol, biological studies 102-71-6, Triethanolamine, biological studies 112-92-5, Octadecanol 119-36-8, Methyl salicylate 124-26-5, Stearamide 124-30-1, Octadecylamine 127-09-3, Sodium acetate 138-86-3, Limonene 151-21-3, Sodium dodecyl sulfate, biological studies 302-95-4, Sodium deoxycholate 361-09-1, Sodium cholate 507-70-0, Borneol 816-94-4, Distearoyl phosphatidylcholine 872-50-4, N-Methylpyrrolidone, biological studies 1310-73-2, Sodium hydroxide, biological studies 1406-18-4, Vitamin E 2644-64-6, Dipalmitoyl phosphatidylcholine 7631-90-5, Sodium bisulfite 7681-57-4, Sodium metabisulfite 7757-83-7, Sodium sulfite 7772-98-7, Sodium thiosulfate 9003-01-4D, crosslinked 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Sodium carboxymethylcellulose 9004-64-2, Hydroxypropylcellulose 9004-65-3, Hydroxypropylmethylcellulose 11099-07-3, Glyceryl stearate 18194-24-6, Dimyristoyl phosphatidylcholine 25322-68-3, Polyethylene glycol

studies, 27870-42-1, Ethyl hydroxybenzoate, 59227-89-3, Azone, 106192-12-5,
Poloxamer 113669-21-9 132372-61-3 137056-72-5
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B virus vaccine liposomes containing phospholipids and surfactants and antioxidants for **transdermal** administration)

L122 ANSWER 16 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1291841 CAPLUS Full-text
DOCUMENT NUMBER: 144:40800
TITLE: Glucosamine and glucosamine/anti-inflammatory mutual prodrugs, compositions, and methods
INVENTOR(S): Capomacchia, Anthony C.; Garner, Solomon T., Jr.; Beach, J. Warren
PATENT ASSIGNEE(S): The University of Georgia Research Center Inc., USA
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005116086	A2	20051208	WO 2005-US11739		20050407
WO 2005116086	A3	20060824			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2005248294	A1	20051208	AU 2005-248294		20050407
CA 2561672	A1	20051208	CA 2005-2561672		20050407
PRIORITY APPLN. INFO.:			US 2004-560128P	P	20040407
			WO 2005-US11739	W	20050407

OTHER SOURCE(S): MARPAT 144:40800
ED Entered STN: 09 Dec 2005
AB Mutual prodrugs of glucosamine, and derivs. and analogs of glucosamine and an anti-inflammatory agent, compns. thereof, and methods for, e.g., treating disorders and conditions by administration of the compns. are provided. Topical compns. of glucosamine, and derivs. and analogs of glucosamine are also provided.
IC ICM C08B037-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 2, 62
IT **Lecithins**
Terpenes, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glucosamine and glucosamine/anti-inflammatory prodrugs)
IT **Skin**
(**permeation** enhancers for; glucosamine and glucosamine/anti-inflammatory prodrugs)
IT Drug delivery systems

(transdermal, patches; glucosamine and glucosamine/anti-inflammatory prodrugs)

IT 57-11-4D, Stearic acid, esters 57-13-6, Urea, biological studies 57-88-5, Cholesterol, biological studies 67-64-1, Acetone, biological studies 67-68-5, Dmso, biological studies 110-17-8, Fumaric acid, biological studies 112-80-1, Oleic acid, biological studies 121-79-9, Propyl gallate 127-19-5, Dimethyl acetamide 134-03-2, Sodium ascorbate 137-66-6, Ascorbic acid palmitate 151-21-3, Sodium lauryl sulfate, biological studies 6915-15-7, Malic acid 7681-57-4, Sodium metabisulfite 9005-65-6, Tween 80 25013-16-5, Bha 59227-89-3, Azone 106392-12-5, Poloxamer
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glucosamine and glucosamine/anti-inflammatory prodrugs)

L122 ANSWER 17 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1220703 CAPLUS Full-text
DOCUMENT NUMBER: 143:483119
TITLE: Transdermal delivery systems and transdermal chelation preparations for detoxification
INVENTOR(S): Buttar, Rashid; Viktora, Dean
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005107723	A2	20051117	WO 2005-US15871	20050506
WO 2005107723	A3	20060817		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-569148P P 20040506
ED Entered STN: 18 Nov 2005
AB The invention provides topical chelating prepns. and formulations. The invention provides methods of transepithelial delivery of a topical chelating preparation to a human or other animal by topical application to the skin of a human or animal of a topical chelating preparation In one aspect, a preparation or formulation of the invention comprises a combination comprising of 2,3-dimercaptopropane-1-sulfonate (DMPS) or glutathione, and methionine, in a stabilizing base. For example, a cream contained DMPS 3.93, glutathione 11.94, glycerin 3.25, Mjry50 0.65, citric acid 0.26 (for chelating with DMPS), colloid710H96 0.14 and cream base 10.39%, in which contained lecithins, stearyl alc. and oleyl alc., and propylene glycol and oils for chelating with DMPS.
IC ICM A61K009-70

(pharmaceuticals)
Section cross-reference(s): 4

ST **transdermal** delivery system metal chelation detoxification; cream dimercaptopropane sulfonate citric acid Mjry50 colloid710H96 alc **lecithin**

IT Colloids
(710H96; **transdermal** delivery systems containing metal chelators for detoxification)

IT Monosaccharides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Sulfonated; **transdermal** delivery systems containing metal chelators for detoxification)

IT Peptides, biological studies
Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Sulfur-containing; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(aerosols; **transdermal** delivery systems containing metal chelators for detoxification)

IT Fats and Glyceridic oils, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(animal; **transdermal** delivery systems containing metal chelators for detoxification)

IT Surfactants
(anionic; **transdermal** delivery systems containing metal chelators for detoxification)

IT Detoxification
(biol.; **transdermal** delivery systems containing metal chelators for detoxification)

IT Surfactants
(cationic; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(emulsions; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(gels; **transdermal** delivery systems containing metal chelators for detoxification)

IT Alcohols, biological studies
Fatty acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(long-chain; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(lotions; **transdermal** delivery systems containing metal chelators for detoxification)

IT Surfactants
(nonionic; **transdermal** delivery systems containing metal chelators for detoxification)

IT Solvents
(nonpolar; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(ointments, creams; **transdermal** delivery systems containing metal chelators for detoxification)

IT Solvents
(organic; **transdermal** delivery systems containing metal chelators for detoxification)

IT Carboxylic acids, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polycarboxylic, polyamino; **transdermal** delivery systems containing metal chelators for detoxification)

IT Lipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polymerized; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(powders; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(sprays; **transdermal** delivery systems containing metal chelators for detoxification)

IT Amino acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sulfur-containing; **transdermal** delivery systems containing metal chelators for detoxification)

IT Drug delivery systems
(topical; **transdermal** delivery systems containing metal chelators for detoxification)

IT Animals
Antioxidants
Chelating agents
Flavor
Human
Polar solvents
Sunscreens
(**transdermal** delivery systems containing metal chelators for detoxification)

IT Alcohols, biological studies
Coenzymes
Crown ethers
Disaccharides
Fatty acids, biological studies
Glycerides, biological studies
Glycolipids
Glycols, biological studies
Glycosphingolipids
High-density lipoproteins
Hydrocarbon oils
Lecithins
Lewis acids
Lewis bases
Low-density lipoproteins
Natural products
Phosphatidic acids
Phosphatidylcholines, biological studies
Phosphatidylethanolamines, biological studies
Phosphatidylinositols
Phosphatidylserines
Phospholipids, biological studies
Polyoxyalkylenes, biological studies
Polysaccharides, biological studies
Polysiloxanes, biological studies
Sphingomyelins
Sulfatides
Tocopherols
Vitamins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**transdermal** delivery systems containing metal chelators for

detoxification)

IT Drug delivery systems
(**transdermal**; **transdermal** delivery systems containing metal chelators for detoxification)

IT Fats and Glyceridic oils, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vegetable; **transdermal** delivery systems containing metal chelators for detoxification)

IT 9003-01-4D, crosslinked
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Carbomer; **transdermal** delivery systems containing metal chelators for detoxification)

IT 59-67-6, Vitamin B5, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Vitamin B5; **transdermal** delivery systems containing metal chelators for detoxification)

IT 50-70-4, Sorbitol, biological studies 50-81-7, Vitamin C, biological studies 52-67-5, Penicillamine 52-90-4, Cysteine, biological studies 56-18-8, Dipropylenetriamine 56-81-5, Glycerin, biological studies 56-89-3, Cystine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 57-55-6, Propylene glycol, biological studies **57-88-5**, Cholesterol, biological studies 58-56-0, Pyridoxine hydrochloride) 58-85-5, Biotin 58-95-7, Vitamin E acetate 59-30-3, Folic Acid), biological studies 59-43-8, VitaminB1, biological studies 59-52-9, British anti-Lewisite 60-00-4D, EDTA, metal complexes 60-33-3, Linoleic acid, biological studies 62-33-9, Calcium disodium ethylenediaminetetraacetate 63-68-3, Methionine, biological studies 64-02-8, Tetrasodium EDTA 64-17-5, Ethanol, biological studies 64-19-7, Acetic acid, biological studies 65-23-6, Pyridoxine 67-42-5 67-43-6, Diethylenetriaminepentaacetic acid 67-56-1, Methanol, biological studies 67-63-0, Isopropanol, biological studies **67-68-5**, DMSO, biological studies 68-04-2, Sodium citrate 68-19-9, Cyanocobalamine 70-18-8, Glutathione, biological studies 70-49-5, Thiomalic acid 71-23-8, Propanol, biological studies 74-61-3 79-40-3, Dithiooxamide 81-13-0, Dexpanthenol 83-88-5, Riboflavin, biological studies 87-69-4, biological studies 98-92-0, Nicotinamide 112-80-1, Oleic acid, biological studies 135-20-6, Cupferron 139-13-9, Nitrilotriacetic acid 139-33-3, Disodium EDTA 142-73-4, Iminodiacetic acid 148-24-3, 8-Hydroxyquinoline, biological studies 150-38-9, Trisodium EDTA 150-39-0, HEDTA 295-37-4, Cyclam 366-18-7, 2,2'-Dipyridyl 463-40-1, Linolenic acid 532-43-4 869-52-3 929-59-9 1135-24-6, Ferulic acid 1256-86-6, Cholesterol sulfate 1406-16-2, Vitamin D 1510-21-0, Cholesterol hemisuccinate 2001-94-7, Dipotassium EDTA 2418-14-6, 2,3-Dimercaptosuccinic acid 2644-64-6, Dipalmitoylphosphatidylcholine 4345-03-3 4539-70-2, Distearoylphosphatidylcholine 6542-05-8 7235-40-7, Beta-carotene 7439-89-6D, Iron, complex with EDTA 7440-02-0D, Nickel, complex with EDTA 7440-19-9D, Samarium, complex with EDTA 9002-18-0, Agar 9004-34-6D, Cellulose, hydroscopic substituted 9004-99-3, Myrj 52 9005-25-8, Starch, biological studies 12001-79-5, Vitamin K 12247-13-1 12519-36-7, Zinc EDTA 13422-51-0, Hydroxycobalamine) 14531-56-7, Dilithium EDTA 14852-71-2, Magnesium EDTA 14931-83-0, Cobalt EDTA 14947-73-0 15009-40-2 15158-64-2 17572-97-3, Tripotassium EDTA 19267-06-2 20824-56-0, Diammonium EDTA 21647-53-0 25322-68-3, PEG 25322-69-4, Polypropylene glycol 51270-71-4 51395-10-9, Copper EDTA 55448-20-9, Manganese EDTA 56491-86-2, 1,4,7-Triazacyclononane-N,N',N''-triacetic acid 60239-18-1, 1,4,7,10-Tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid 864943-29-3
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Transdermal delivery systems containing metal chelators for detoxification)

L122 ANSWER 18 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1132649 CAPLUS Full-text
DOCUMENT NUMBER: 143:411065
TITLE: Drug delivery systems containing drugs in a water soluble composition immersed in a hydrophobic medium for improved penetration through biological barriers
INVENTOR(S): Ben-Sasson, Shmuel A.
PATENT ASSIGNEE(S): Israel
SOURCE: U.S. Pat. Appl. Publ., 25 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005232981	A1	20051020	US 2005-105763	20050414
AU 2005329255	A1	20060921	AU 2005-329255	20050414
WO 2006097793	A2	20060921	WO 2005-IB4183	20050414
WO 2006097793	A3	20061221		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-562345P P 20040415
WO 2005-IB4183 W 20050414
OTHER SOURCE(S): MARPAT 143:411065
ED Entered STN: 21 Oct 2005
AB This invention relates to novel penetrating compns. including one or more effectors included within a water soluble composition, immersed in a hydrophobic medium. The invention also relates to methods of treating or preventing diseases by administering such penetrating compns. to affected subjects. For example, a composition with improved insulin across epithelial barrier contained insulin, spermine, phytic acid, sodium dodecanoate, octanol/geraniol, mineral oil/medium chain triglycerides/castor oils.
IC ICM A61K038-54
ICS A61K009-127; A61K035-78
INCL 424448000; 424757000; 424094200
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 15
IT Alcohols, biological studies
Antibodies and Immunoglobulins
Antigens
Aromatic compounds
Bile salts
Castor oil
Cyclic compounds
Cycloalkanols

DNA
Diglycerides
Dipeptides
Enkephalins
Enzymes, biological studies
Esters, biological studies
Ethers, biological studies
Fatty acids, biological studies
Glycerides, biological studies
Glycols, biological studies
Glycosaminoglycans, biological studies
Growth factors, animal
Hormones, animal, biological studies
Interferons
Interleukin 2
Lecithins
Monoglycerides
Neurotrophic factors
Nucleic acids
Paraffin oils
Peptides, biological studies
Phosphonates
Polyoxyalkylenes, biological studies
Polysaccharides, biological studies
Proteins
Quaternary ammonium compounds, biological studies
RNA
Terpenes, biological studies
Toxins
Tripeptides
Vitamins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery systems with improved penetration through biol. barriers containing drugs in water soluble composition immersed in hydrophobic media)

IT Drug delivery systems
(**transdermal**; drug delivery systems with improved penetration through biol. barriers containing drugs in water soluble composition immersed in hydrophobic media)

IT 53-79-2, Puromycin 55-91-4, DFP 56-45-1D, L-Serine, borate complexes 56-81-5, Glycerol, biological studies 57-55-6, Propylene glycol., biological studies **57-88-5**, Cholesterol, biological studies **57-88-5D**, Cholesterol, derivs. 60-00-4, EDTA, biological studies 60-00-4D, EDTA, conjugates with chitosan 60-01-5, Glyceryl tributyrate 64-17-5, Ethanol, biological studies 66-71-7, 1,10-Phenanthroline 67-63-0, Isopropanol, biological studies 68-19-9, Vitamin B12 71-23-8, Propanol, biological studies 71-36-3, Butanol, biological studies 71-41-0, Pentanol, biological studies 71-44-3, Spermine 89-78-1, Menthol 100-51-6, Benzyl alcohol, biological studies 106-24-1, Geraniol 108-39-4, m-Cresol., biological studies 108-95-2, Phenol, biological studies 111-27-3, Hexanol, biological studies 111-70-6, 1-Heptanol 111-87-5, Octanol, biological studies 112-30-1, Decanol 112-42-5, Undecanol 112-53-8, Dodecanol 120-51-4, Benzyl benzoate 143-08-8, Nonanol **151-21-3**, Sodium dodecyl sulfate, biological studies 329-98-6, PMSF 501-52-0, Benzenepropanoic acid 616-91-1 629-25-4, Sodium dodecanoate 863-57-0, Sodium glycocholate 1002-62-6, Sodium decanoate 1256-86-6, Cholesterol sulfate 1338-39-2, Sorbitan monolaurate 1338-43-8, Sorbitan monooleate 1405-87-4,

Bacitracin 1984-06-1, Sodium octanoate 2364-87-6, TLCK 2373-23-1, Dioctyl sulfosuccinate 3858-83-1, p Aminobenzamidine 4602-84-0, Farnesol 7400-08-0, 4-Hydroxycinnamic acid 8001-27-2, Hirudin 9002-64-6, Parathyroid hormone 9002-67-9, Luteinizing hormone 9002-68-0, Follicle-stimulating hormone 9002-72-6, Growth hormone 9002-79-3, Melanocyte stimulating hormone 9002-89-5, Polyvinyl alcohol 9003-01-4D, Poly(acrylic acid), derivs. 9003-39-8, Polyvinylpyrrolidone 9004-10-8, Insulin, biological studies 9004-57-3, Ethylcellulose 9004-61-9, Hyaluronic acid 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9005-49-6, Heparin, biological studies 9007-12-9, Calcitonin 9007-28-7, Chondroitin sulfate 9012-76-4D, Chitosan, conjugates with EDTA 9034-40-6D, Luteinizing hormone releasing hormone, analogs 9041-92-3, α1-Antitrypsin 9050-30-0 9076-44-2, Chymostatin 9078-38-0, Soybean trypsin inhibitor 9088-07-7, Natriuretic peptide 10041-19-7, Dioctyl sulfosuccinate 10465-78-8, Diamide 11096-26-7, Erythropoietin 13780-71-7D, Boronic acid, amino derivs. 13780-71-7D, Boronic acid, biphenyl, complexes with sugar 16749-13-6D, Phosphonium, derivs. 16969-45-2D, Pyridinium, derivs. 17009-90-4D, Imidazolium, derivs. 24967-94-0, Dermatan sulfate 25322-68-3D, PEG, fatty alc. ethers 25496-72-4, Glyceryl monooleate 26266-57-9, Sorbitan monopalmitate 26402-22-2, Glyceryl monodecanoate 26402-26-6 26657-96-5, Glyceryl monopalmitate 27214-38-6, Glyceryl monomyristate 27215-38-9, Glyceryl monolaurate 30827-99-7, AEBSF 31566-31-1, Glyceryl monostearate 33069-62-4, Taxol 36357-77-4, Phosphoramidon 37330-34-0, Bowman-birk inhibitor 37691-11-5, Antipain 42228-92-2, Acivicin 45470-32-4, 1,3-Dimethylimidazolium 51798-45-9, Elastatinal 54241-84-8, Incretin 54548-50-4, m-Chlorocresol. 55123-66-5, Leupeptin 57680-56-5, Sucrose octasulfate 58970-76-6, Bestatin 59721-29-8 61909-81-7, sol.utol HS15 64111-53-1 65039-03-4, 1-Ethyl-3-methylimidazolium 65144-34-5 67655-94-1, Amastatin 70904-56-2, Kyotorphin 71933-13-6, APMSF 76721-89-6, Thiorphan 80432-08-2, 1-Butyl-3-methylimidazolium 81627-83-0, Monocyte colony stimulating factor 81733-79-1, Dalargin 85100-82-9, 1-Hexyl-3-methylimidazolium 88105-67-3 89703-10-6, FK 448 89750-14-1, Glucagon-like peptide 1 104993-28-4, Fondaparinux 106096-93-9, Basic fibroblast growth factor 106392-12-5, Poloxamer 125867-77-8 128270-60-0, Hirulog 143011-72-7, Granulocyte colony stimulating factor 147245-92-9, Glatiramer acetate 157310-70-8, 1,2-Dimethyl-3-propylimidazolium 162808-62-0, Caspofungin 178631-03-3 313475-49-9 343952-32-9 679809-58-6, Enoxaparin sodium
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug delivery systems with improved penetration through biol. barriers containing drugs in water soluble composition immersed in hydrophobic media)

L122 ANSWER 19 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1172826 CAPLUS Full-text
DOCUMENT NUMBER: 144:93992
TITLE: Mechanisms of action of novel skin penetration enhancers: Phospholipid versus skin lipid liposomes
AUTHOR(S): El Maghraby, Gamal M. M.; Campbell, Michael; Finnin, Barrie C.
CORPORATE SOURCE: The School of Pharmacy, Faculty of Medical and Health Sciences, Lower Ground Floor, Building 504, Corner Boyle Crescent and Glasgow Terrace, Grafton, University of Auckland, Auckland, 92019, N. Z.
SOURCE: International Journal of Pharmaceutics (2005), 305(1-2), 90-104
CODEN: IJPHDE; ISSN: 0378-5173

PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 04 Nov 2005
AB Employing thermal anal., the authors investigated the mechanism of action of novel enhancers and probed phospholipid (PL) vs. stratum corneum lipid (SCL) liposomes as model membranes. The enhancers included octyl salicylate (OS), padimate O (PADO) and 2-(1-nonyl)-1,3-dioxolane (ND). The neg. controls were the empty liposomes. Pos. controls employed dimethylsulfoxide (DMSO) and Azone (AZ). For PL liposomes, DMSO sharpened the transitions. AZ abolished the pre-transition, broadened the main transition and linearly reduced its transition temperature (Tm). OS or PADO reduced Tm and size of pre-transition, broadened the main transition and decreased its Tm (non-linearly). ND abolished the pre-transition but increased Tm of the main endotherm, suggesting retardation rather than enhancement. The results of SCL correlated with PL liposomes except for ND. In SCL liposomes, ND reduced Tm and broadened the peaks indicating lipid disruption, which indicated its enhancing effects. In conclusion, OS, PADO and ND can enhance drugs by disrupting intercellular lipid domain but they differ from AZ in terms of the relationship between efficacy and concentration Although PL liposomes are simple model membranes with sharp transitions which give detailed information about the effects of enhancers, they can provide misleading results. Simultaneous use of other models like SCL liposomes is recommended.
CC 63-5 (Pharmaceuticals)
IT 57-10-3, Palmitic acid, biological studies **57-88-5**, Cholesterol, biological studies 63-89-8, DPPC 1256-86-6, Cholesterol sulfate 178436-06-1, Ceramide IIIb 338741-74-5, Ceramide III
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mechanisms of action of **skin penetration** enhancers on phospholipid vs. stratum corneum lipid liposomes as model membranes)
IT **67-68-5**, Dimethylsulfoxide, biological studies 118-60-5, Octyl salicylate 4353-06-4, 2-(1-Nonyl)-1,3-dioxolane 21245-02-3, Padimate O 59227-89-3, Azone
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mechanisms of action of skin penetration enhancers on phospholipid vs. stratum corneum lipid liposomes as model membranes)
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L122 ANSWER 20 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:267355 CAPLUS Full-text
DOCUMENT NUMBER: 140:302322
TITLE: Hepatitis B virus antigenic epitopes for preparation of therapeutic vaccines or drugs for treatment of hepatitis B
INVENTOR(S): Wu, Yuzhang; Bian, Jiang; Zhou, Wei; Jia, Zhengcai; Shi, Tongdong; Zou, Liyun
PATENT ASSIGNEE(S): Institute of Immunology, PLA, Peop. Rep. China; Chongqing Jiachen Bioengineering Co., Ltd.
SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004026899	A1	20040401	WO 2003-CN792	20030918
WO 2004026899	A9	20050512		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO,
CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM,
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CN 1483736	A	20040324	CN 2002-130738	20020918
AU 2003271021	A1	20040408	AU 2003-271021	20030918
US 2006246089	A1	20061102	US 2006-528350	20060215
PRIORITY APPLN. INFO.:			CN 2002-130738 A	20020918
			WO 2003-CN792 W	20030918

ED Entered STN: 01 Apr 2004

AB The present invention relates to an immunogen for treatment of Hepatitis B, its producing method and use, with said immunogen comprises a peptide sequence, which contains amino acid sequence 1, 2 and 3 that linked with each other by several linker peptides via covalent bond; wherein said amino acid sequence 1 is a sequence of T helper-cell (Th) epitopes, and said amino acid sequence 2 and 3 each is a sequence of Cytotoxic T-lymphocyte (CTL) epitopes and B-cell epitopes derived from Hepatitis B virus, resp. These epitopes are derived from hepatitis B virus core, surface, pre-S1, pre-S2, HBx and pol antigens. These epitopes may also be derived from tetanus toxin, and may be modified with alkyl or alkenyl group. The present invention also directs to vaccines or drugs composition containing the immunogen, and producing method and use thereof.

IC ICM C07K014-02
ICS C12P021-02; A61P031-12; A61K039-29; A61K039-39

CC 15-2 (Immunochemistry)
Section cross-reference(s): 9, 63

IT **Lecithins**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B virus antigenic epitopes for preparation of therapeutic vaccines or drugs for treatment of hepatitis B)

IT **Lecithins**
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(soya; hepatitis B virus antigenic epitopes for preparation of therapeutic vaccines or drugs for treatment of hepatitis B)

IT Drug delivery systems
(**transdermal**; hepatitis B virus antigenic epitopes for preparation of therapeutic vaccines or drugs for treatment of hepatitis B)

IT 64-17-5, Ethanol, biological studies **67-68-5**, Dimethylsulfoxide, biological studies 69-65-8, D-Mannitol 75-05-8, Acetonitrile, biological studies 76-05-1, TFA, biological studies 107-21-1, Ethylene glycol, biological studies 108-95-2, Phenol, biological studies 7558-79-4, Disodium phosphate 7647-01-0, Hydrochloric acid, biological studies 7664-38-2D, Phosphoric acid, salts 7778-77-0, Monopotassium phosphate
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hepatitis B virus antigenic epitopes for preparation of therapeutic vaccines or drugs for treatment of hepatitis B)

IT 57-88-5, Cholesterol, biological studies 1406-18-4, Vitamin E
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hepatitis B virus antigenic epitopes for preparation of therapeutic vaccines or drugs for treatment of hepatitis B)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L122 ANSWER 21 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:983 CAPLUS Full-text
DOCUMENT NUMBER: 142:79607
TITLE: Compositions and methods for skin rejuvenation and repair
INVENTOR(S): Jain, Deepak
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. Ser. No. 222,949.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004265268	A1	20041230	US 2004-821427		20040409
US 2003068297	A1	20030410	US 2002-222949		20020816
PRIORITY APPLN. INFO.:			US 2001-313306P	P	20010818
			US 2001-313307P	P	20010818
			US 2001-313313P	P	20010818
			US 2001-313314P	P	20010818
			US 2002-222949	A2	20020816
			US 2001-313306	A2	20010818
			US 2001-313307	A2	20010818
			US 2001-313313	A2	20010818
			US 2001-313314	A2	20010818

ED Entered STN: 31 Dec 2004
AB The present invention provides compns. for the repair of mammalian skin. The compns. contain cell growth enhancers to increase the growth rate of skin cells, stimulators of cell growth enhancers, nutrients to support log phase growth of skin cells, cell protectors to protect growing cells and enhanced cellular activity, antioxidants to protect rejuvenated cells, extracellular matrix proteins, stimulators of extracellular matrix proteins, and penetration enhancers. The compns. of the present invention are effective for repairing and rejuvenating mammalian skin, such that aging skin treated with the compns. has a significant reduction in the number of fine lines and wrinkles in the skin. The compns. are also effective for promoting the healing of skin that has suffered a wound, such as a sunburn or abrasion, and for promoting the growth of hair on the scalp.
IC ICM A61K038-19
ICS A61K031-728
INCL 424085100; 514474000; 435404000; 514054000
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 63
IT 50-81-7, Ascorbic acid, biological studies 52-89-1, L-Cysteine hydrochloride 52-90-4, Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic Acid, biological studies 56-85-9, L-Glutamine, biological studies 56-86-0, L-Glutamic Acid, biological studies 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 58-56-0, Pyridoxine.hydrochloride 58-85-5, D-Biotin 59-30-3, Folic Acid, biological studies 60-18-4, L-Tyrosine, biological studies 60-33-3, Linoleic acid, biological studies 61-90-5, L-Leucine, biological studies 63-68-3, L-Methionine, biological studies 63-91-2, L-Phenylalanine,

biological studies 64-17-5, Ethanol, biological studies 65-22-5, Pyridoxal hydrochloride 67-03-8, Thiamine hydrochloride 67-48-1, Choline Chloride 67-56-1, Methanol, biological studies 67-63-0, Isopropanol, biological studies 68-19-9, Vitamin B12 68-94-0, Hypoxanthine 70-18-8, Glutathione, biological studies 70-47-3, L-Asparagine, biological studies 71-23-8, Propanol, biological studies 72-18-4, L-Valine, biological studies 72-19-5, L-Threonine, biological studies 73-22-3, L-Tryptophan, biological studies 73-32-5, L-Isoleucine, biological studies 76-22-2, Camphor 79-83-4, D-Pantothenic Acid 83-88-5, Riboflavin, biological studies 87-89-8, MyoInositol 98-92-0, Niacinamide 110-60-1, Putrescine 111-87-5, Octyl alcohol, biological studies 112-30-1, Decyl alcohol 112-53-8, Lauryl alcohol 112-80-1, Oleic acid, biological studies 112-92-5, Stearyl alcohol 113-24-6, Sodium pyruvate 127-09-3, Sodium acetate 134-03-2, Sodium ascorbate 137-08-6, Calcium D-pantothenate 143-28-2, Oleyl alcohol 144-55-8, Sodium bicarbonate, biological studies 147-85-3, L-Proline, biological studies 151-21-3, Sodium dodecylsulfate, biological studies 289-95-2D, Pyrimidine, derivs. 302-79-4, Tretinoin 303-98-0, Coenzyme Q 10 1007-42-7, L-Histidine.hydrochloride 1200-22-2, Lipoic acid 1344-09-8, Sodium silicate 1406-18-4, Vitamin E 7235-40-7, β-Carotene 7365-45-9, HEPES 7447-40-7, Potassium chloride, biological studies 7558-79-4, Dibasic sodium phosphate 7558-80-7, Sodium phosphate monobasic 7647-14-5, Sodium chloride, biological studies 7718-54-9, Nickel chloride, biological studies 7720-78-7, Ferrous sulfate 7733-02-0, Zinc sulfate 7758-11-4, Potassium phosphate dibasic 7758-98-7, Copper sulfate, biological studies 7772-99-8, Tin chloride, biological studies 7778-77-0, Potassium phosphate monobasic 7782-49-2, Selenium, biological studies 7785-87-7, Manganese sulfate 9002-72-6, Somatotropin 9004-10-8, Insulin, biological studies 9004-61-9, Hyaluronic acid 9005-65-6, Polysorbate 80 9041-08-1, Heparin-Sodium 9067-32-7, Sodium hyaluronate 10098-89-2, L-Lysine.hydrochloride 10102-18-8, Sodium selenite 10421-48-4, Ferric nitrate 11096-26-7, Erythropoietin 11098-84-3, Ammonium molybdate 12001-79-5, Vitamin K 15595-35-4, L-Arginine.hydrochloride 22177-51-1, Adenine.hydrochloride 25265-75-2, Butylene glycol 34760-60-6 36653-82-4, Cetyl alcohol 52993-54-1, Menthane 61912-98-9, Insulin-like growth factor 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor 83869-56-1, Granulocyte macrophage colony stimulating factor 106096-92-8, Acidic FGF 117147-70-3, Amphiregulin 127464-60-2, Vascular endothelial growth factor 143011-72-7, Granulocyte colony stimulating factor 148348-15-6, Fibroblast growth factor 7
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(skin rejuvenation and repair compns. containing cell growth rate enhancers and cell protectants and penetration enhancers)

L122 ANSWER 22 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:590987 CAPLUS Full-text
DOCUMENT NUMBER: 139:138761
TITLE: Method of treatment of patients requiring analgesia with opioid analgesics
INVENTOR(S): Jackson, Karen
PATENT ASSIGNEE(S): Ml Laboratories Plc, UK
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003061632	A1	20030731	WO 2003-GB221	20030122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2473884	A1	20030731	CA 2003-2473884	20030122
EP 1467718	A1	20041020	EP 2003-708305	20030122
EP 1467718	B1	20051123		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003007022	A	20041103	BR 2003-7022	20030122
JP 2005521655	T	20050721	JP 2003-561577	20030122
AT 310509	T	20051215	AT 2003-708305	20030122
ES 2253662	T3	20060601	ES 2003-3708305	20030122
NO 2004002758	A	20040922	NO 2004-2758	20040630
PRIORITY APPLN. INFO.:			GB 2002-1367 A	20020122
			WO 2003-GB221 W	20030122

ED Entered STN: 01 Aug 2003

AB There is described a method of treatment of a patient requiring analgesia which comprises the sep., simultaneous or sequential administration of a therapeutically effective amount of an opioid analgesic, devazepide, and a surfactant. There is also described a monophasic pharmaceutical composition comprising devazepide effective in the enhancement of opioid analgesia and a surfactant. The daily dosage of devazepide is up to 0.7 mg/kg/day.

IC ICM A61K009-48
ICS A61K031-5513; A61K047-18; A61K047-20; A61P025-04; A61K031-485; A61K031-4468

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

IT **Lecithins**
Lysophosphatidylcholines
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrogenated; method of treatment of patients requiring analgesia with opioid analgesics)

IT Bile acids
Bile salts
Diglycerides
Fatty acids, biological studies
Lecithins
Lysophosphatidylcholines
Lysophospholipids
Monoglycerides
Oligopeptides
Opioids
Peptides, biological studies
Phospholipids, biological studies
Sterols
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method of treatment of patients requiring analgesia with opioid analgesics)

IT Drug delivery systems

(transdermal; method of treatment of patients requiring analgesia with opioid analgesics)

IT 50-70-4, Sorbitol, biological studies 50-99-7, Dextrose, biological studies 52-26-6 57-27-2, Morphine, biological studies 57-42-1, Meperidine 57-50-1, Sucrose, biological studies 57-55-6D, Propylene glycol, derivs. 63-42-3, Lactose 64-31-3, Morphine sulfate 69-65-8, Mannitol 69-79-4D, Maltose, alkyl derivs. 76-41-5, Oxymorphone 76-42-6, Oxycodone 76-57-3, Codeine 76-99-3, Methadone 77-07-6, Levorphanol 77-20-3, Alphaprodine 77-92-9, Citric acid, biological studies 125-28-0, Dihydrocodeine 125-29-1, Hydrocodone 127-35-5, Phenazocine 143-52-2, Metopon 151-21-3, Sodium lauryl sulfate, biological studies 357-56-2, Dextromoramide 359-83-1, Pentazocine 437-38-7, Fentanyl 465-65-6, Naloxone 466-99-9, Hydromorphone 467-83-4, Dipipanone 467-84-5, Phenadoxone 469-62-5, Dextropropoxyphene 541-15-1D, Carnitine, analogs 557-04-0 561-27-3, Diamorphine 577-11-7, Docusate sodium 915-30-0, Diphenoxylate 1119-97-7, Tetradecyltrimethylammonium bromide 5138-18-1D, Sulfosuccinic acid, alkyl esters 7447-40-7, Potassium chloride (KCl), biological studies 7647-14-5, Sodium chloride, biological studies 7664-93-9D, Sulfuric acid, alkyl esters, salts 7757-93-9, Dibasic calcium phosphate 7778-18-9, Calcium sulfate 8044-71-1, Cetrimide 9005-25-8, Starch, biological studies 9005-25-8D, Starch, hydrolyzates 9005-32-7D, Alginic acid, salts 12441-09-7D, Sorbitan, esters with fatty acids 14807-96-6, Talc, biological studies 20290-10-2, Morphine-6-glucuronide 20408-97-3D, Thioglucose, alkyl derivs. 20594-83-6, Nalbuphine 25322-68-3D, Polyethylene glycol, esters or ethers 25322-69-4D, Polypropylene glycol, esters with fatty acids 27203-92-5, Tramadol 42408-82-2, Butorphanol 52485-79-7, Buprenorphine 54340-58-8, Meptazinol 71195-58-9, Alfentanil 103420-77-5, Devacade 106392-12-5, Polyethylene glycol-polypropylene glycol block copolymer 132875-61-7, Remifentanil 337376-15-5, Icodextrin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method of treatment of patients requiring analgesia with opioid analgesics)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L122 ANSWER 23 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:633285 CAPLUS Full-text
DOCUMENT NUMBER: 139:159955
TITLE: Method and pharmaceutical composition using devazepide and surfactant with opioid analgesic therapy
INVENTOR(S): Jackson, Karen
PATENT ASSIGNEE(S): ML Laboratories PLC, UK
SOURCE: U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S. Ser. No. 108,659.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003153592	A1	20030814	US 2003-349431	20030122
US 6713470	B2	20040330		
US 2004198723	A1	20041007	US 2002-53962	20020122
US 2003139396	A1	20030724	US 2002-108659	20020327
US 2004043990	A1	20040304	US 2003-410311	20030409
US 2004167146	A1	20040826	US 2003-622492	20030721

US 2004142959 A1 20040722 US 2004-752411 20040107

PRIORITY APPLN. INFO.: US 2002-53962 B2 20020122
US 2002-108659 A2 20020327
GB 2002-1367 A 20020122
GB 2002-8129 A 20020409
US 2003-349431 A2 20030122

ED Entered STN: 15 Aug 2003

AB There is described a method of treatment of a patient requiring analgesia which comprises the sep., simultaneous or sequential administration of a therapeutically effective amount of an opioid analgesic, devazepide and a surfactant. There is also described a monophasic pharmaceutical composition comprising an amount of devazepide effective in the enhancement of opioid analgesia and a pharmaceutically acceptable surfactant. The use of a surfactant is advantageous in that it improves the powder flow and/or separation properties of solid devazepide and also reduces or mitigates the undesirable side effects of opioid administration, e.g. constipation.

IC ICM A61K031-485

INCL 514282000

CC 1-11 (Pharmacology)
Section cross-reference(s): 63

IT Alcohols, biological studies
Bile acids
Bile salts
Fatty acids, biological studies
Glycerides, biological studies
Lecithins
Lysophosphatidylcholines
Lysophospholipids
Phospholipids, biological studies
Sterols
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(devazepide and surfactant monophasic pharmaceutical composition for enhancement of opioid analgesic)

IT **Lecithins**
Lysophosphatidylcholines
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydrogenated; devazepide and surfactant monophasic pharmaceutical composition for enhancement of opioid analgesic)

IT Drug delivery systems
(**transdermal**, patches; devazepide and surfactant monophasic pharmaceutical composition for enhancement of opioid analgesic)

IT 50-21-5D, Lactic acid, oligomers, acyl derivs., reaction products with glycerides 52-26-6 56-81-5D, Glycerol, fatty acid esters, polyethylene glycol ethers 57-27-2, Morphine, biological studies 57-27-2D, Morphine, salts 57-42-1, Meperidine 57-55-6D, Propylene glycol, reaction products with diglycerides 64-31-3, Morphine sulfate 69-79-4D, Maltose, alkylmaltosides 76-41-5, Oxymorphone 76-42-6, Oxycodone 76-42-6D, Oxycodone, salts 76-57-3, Codeine 76-99-3, Methadone 77-07-6, Levorphanol 77-20-3, Alphaprodine 77-92-9D, Citric acid, reaction products with glycerides 87-69-4D, Tartaric acid, monoacetylated or diacetylated, esters with glycerides 110-15-6D, Succinic acid, reaction products with monoglycerides 125-28-0, Dihydrocodeine 125-29-1, Hydrocodone 127-35-5, Phenazocine 143-52-2, Metopon 151-21-3, Sodium dodecyl sulfate, biological studies 357-56-2, Dextromoramide 359-83-1, Pentazocine 437-38-7, Fentanyl 437-38-7D, Fentanyl, salts 465-65-6, Naloxone 466-99-9, Hydromorphone 466-99-9D, Hydromorphone, salts 467-83-4, Dipipanone 467-84-5, Phenadoxone 469-62-5, Dextropropoxyphene 541-15-1D, Carnitine,

Reaction products with fatty acids 561-27-3, Diamorphine 577-11-7, Docusate sodium 915-30-0, Diphenoxylate 1119-97-7, Tetradecyltrimethyl ammonium bromide 5138-18-1D, Sulfosuccinic acid, salts, alkyl derivs. 8044-71-1, Cetrimide 9005-32-7D, Alginic acid, salts 9005-37-2, Propylene glycol alginate 12441-09-7D, Sorbitan, fatty acid esters, ethoxylated 20290-10-2, Morphine-6-glucuronide 20594-83-6, Nalbuphine 25322-68-3D, alkyl ethers or alkylphenols 25322-68-3D, Polyethylene glycol, fatty acid esters 25618-55-7D, Polyglycerol, fatty acid esters 27203-92-5, Tramadol 42408-82-2, Butorphanol 52485-79-7, Buprenorphine 54340-58-8, Meptazinol 71195-58-9, Alfentanil 106392-12-5 132875-61-7, Remifentanil
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(devazepide and surfactant monophasic pharmaceutical composition for enhancement of opioid analgesic)

L122 ANSWER 24 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:228688 CAPLUS Full-text
DOCUMENT NUMBER: 134:271250
TITLE: Surface modified particulate pharmaceutical compositions containing surfactants
INVENTOR(S): Pace, Gary W.; Mishra, Awadhesh K.; Snow, Robert A.
PATENT ASSIGNEE(S): RTP Pharma Inc., USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001021154	A2	20010329	WO 2000-US25880		20000921
WO 2001021154	A3	20011025			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2383233	A1	20010329	CA 2000-2383233		20000921
AU 2000079842	A	20010424	AU 2000-79842		20000921
EP 1214059	A2	20020619	EP 2000-970467		20000921
EP 1214059	B1	20050525			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL					
JP 2003509453	T	20030311	JP 2001-524580		20000921
AT 296091	T	20050615	AT 2000-970467		20000921
ES 2241663	T3	20051101	ES 2000-970467		20000921
HK 1051808	A1	20050422	HK 2003-104030		20030609
US 2006210622	A1	20060921	US 2005-272902		20051114
AU 2006201100	A1	20060413	AU 2006-201100		20060316
PRIORITY APPLN. INFO.:			US 1999-154964P	P	19990921
			AU 2000-79842	A3	20000921
			US 2000-667328	B1	20000921
			WO 2000-US25880	W	20000921

ED Entered STN: 30 Mar 2001

AB This invention disclosure relates to compns. for the delivery of stable, surface modified sub-micron and micron sized particles of water-insol. drugs from a non-aqueous medium that self-disperses on exposure to an aqueous environment. Thus, compns. of cyclosporine that self-disperse into surface-modified micron- or sub-micron-sized particle suspensions contained cyclosporine 50, Epax 4510-TG 150, vitamin E-TPGS 45, Tween 80 405, and EtOH 150 mg.

IC ICM A61K009-14

CC 63-6 (Pharmaceuticals)

IT Alcohols, biological studies
Bile salts
Diglycerides
Gelatins, biological studies
Glycerides, biological studies
Glycols, biological studies
Hormones, animal, biological studies
Monoglycerides
Peptides, biological studies
Phospholipids, biological studies
Polyoxyalkylenes, biological studies
Proteins, general, biological studies
Salts, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surface modified particulate pharmaceutical compns. containing surfactants)

IT Drug delivery systems
(**transdermal**; surface modified particulate pharmaceutical compns. containing surfactants)

IT 56-81-5, Glycerol, biological studies 57-09-0, Cetyltrimethylammonium bromide 57-55-6D, Propylene glycol, fatty acid esters **57-88-5**, Cholesterol, biological studies **57-88-5D**, Cholesterol, fatty acid esters 60-33-3, Linoleic acid, biological studies 64-17-5, Ethanol, biological studies 77-93-0, Triethyl citrate 84-66-2, Diethyl phthalate 102-76-1, Triacetin 108-32-7, Propylene carbonate 111-90-0, Transcutol 112-80-1, Oleic acid, biological studies 112-92-5, Stearyl alcohol 120-51-4, Benzyl benzoate 121-79-9, Propyl gallate 128-13-2, Ursodiol 139-07-1, Lauryldimethylbenzylammonium chloride **151-21-3**, Sodium lauryl sulfate, biological studies 423-55-2, Perflubron 544-35-4, Ethyl linoleate 577-11-7, Dioctyl sodium sulfosuccinate 1338-39-2, Span 20 1406-18-4, Vitamin E 4568-28-9, Triethanolamine stearate 5306-85-4, Dimethyl isosorbide 7384-98-7, Propylene glycol dicaprylate 7689-03-4, Camptothecin 7689-03-4D, Camptothecin, derivs. 9002-96-4 9004-10-8, Insulin, biological studies 9004-10-8D, Insulin, derivs., biological studies 9004-32-4, Carboxymethyl cellulose sodium salt 9004-34-6, Hydroxycellulose, biological studies 9004-34-6D, Cellulose, derivs., biological studies 9004-64-2, Hydroxypropyl cellulose 9004-65-3, HPMC 9004-67-5, Methyl cellulose 9005-25-8, Starch, biological studies 9005-38-3, Sodium alginate 9005-64-5, Tween 20 9005-65-6, Tween 80 9005-66-7, Tween 40 9005-67-8, Tween 60 9005-70-3, Tween 85 9050-04-8 10124-65-9, Potassium laurate 21829-25-4, Nifedipine 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, fatty ethers or esters 25395-31-7, Diacetin 25496-72-4, Glyceryl monooleate 26446-35-5, Monoacetin 31566-31-1, Glyceryl monostearate 31692-85-0, Glycofurol 33069-62-4, Paclitaxel 36322-90-4, Piroxicam 36653-82-4, Cetyl alcohol 37321-62-3, Propylene glycol laurate 49562-28-9, Fenofibrate 51333-22-3, Budesonide 53168-42-6, Myvacet 9-45 57107-95-6 59277-89-3, Acyclovir 59277-89-3D, Acyclovir, derivs. 59865-13-3D, Cyclosporin, derivs. 67660-31-5, Polyethylene glycol glyceryl monoleate 68332-79-6, Propylene glycol caprylate 77466-09-2,

Miglyol 840 84625-61-6, Itraconazole 97708-73-1, Miglyol 829 106392-12-5, Poloxamer 108266-04-2, 110617-70-4, Poloxamine 121548-04-7, Gelucire 44/14 121693-37-6, Dimethyl isomannide 133516-01-5, Propylene glycol caprate 138483-17-7 194348-72-6, Dimethyl isoidide 331716-00-8
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surface modified particulate pharmaceutical compns. containing surfactants)

L122 ANSWER 25 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:725436 CAPLUS Full-text
DOCUMENT NUMBER: 133:301171
TITLE: Compositions and methods for improved delivery of ionizable hydrophobic therapeutic agents
INVENTOR(S): Chen, Feng-jing; Patel, Manesh V.
PATENT ASSIGNEE(S): Lipocine, Inc., USA
SOURCE: PCT Int. Appl., 99 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000059475	A1	20001012	WO 2000-US7342	20000316
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6383471	B1	20020507	US 1999-287043	19990406
CA 2366702	A1	20001012	CA 2000-2366702	20000316
EP 1165048	A1	20020102	EP 2000-916547	20000316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1999-287043 A 19990406
WO 2000-US7342 W 20000316

ED Entered STN: 13 Oct 2000

AB The present invention is directed to a pharmaceutical composition including a hydrophobic therapeutic agent having at least one ionizable functional group, and a carrier. The carrier includes an ionizing agent capable of ionizing the functional group, a surfactant, and optionally solubilizers, triglycerides, and neutralizing agents. The invention further relates to a method of preparing such compns. by providing a composition of an ionizable hydrophobic therapeutic agent, an ionizing agent, and a surfactant, and neutralizing a portion of the ionizing agent with a neutralizing agent. The compns. of the invention are particularly suitable for use in oral dosage forms. A carrier containing concentrated phosphoric acid 0.025, Tween-20 0.3, Arlacel 186 0.2, sodium taurocholate 0.15, propylene glycol 0.3 g was formulated. Itraconazole was included in the carrier at 30 mg/mL for testing the stability of the itraconazole solution upon dilution in simulated gastric fluid.

IC ICM A61K009-14
ICS A61K009-48; A61K009-64; A61K009-66; A01N025-00
CC 63-6 (Pharmaceuticals)
IT Alcohols, biological studies

Amino acids, biological studies
Bile salts
Carboxylic acids, biological studies
Diglycerides
Phenols, biological studies
Phospholipids, biological studies
Soybean oil
Sulfonamides
Sulfonates
Sulfonic acids, biological studies
Sulfonylureas
Tannins
Thiols (organic), biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compns. containing hydrophobic therapeutic agents and carriers containing ionizing agents and surfactants and triglycerides)

IT Drug delivery systems
(**transdermal**; pharmaceutical compns. containing hydrophobic therapeutic agents and carriers containing ionizing agents and surfactants and triglycerides)

IT 50-06-6, Phenobarbital, biological studies 50-21-5, biological studies 50-21-5D, Lactic acid, glycerides 50-44-2, Mercaptopurine 50-48-6, Amitriptyline 50-52-2, Thioridazine 50-53-3, Chlorpromazine, biological studies 50-55-5, Reserpine 50-78-2 50-81-7, Ascorbic acid, biological studies 51-48-9, Levothyroxine, biological studies 51-52-5, Propylthiouracil 51-55-8, Atropine, biological studies 51-64-9, Dexamphetamine 52-86-8, Haloperidol 53-86-1, Indomethacin 54-05-7, Chloroquine 54-11-5, Nicotine 54-31-9 56-54-2, Quinidine 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 57-22-7, Vincristine 57-27-2, Morphine, biological studies 57-41-0, Phenytoin 57-43-2, Amylobarbital 57-44-3, Barbital 57-47-6, Physostigmine 57-66-9, Probenecid **57-88-5**, Cholesterol, biological studies 58-14-0, Pyrimethamine 58-25-3, Chlordiazepoxide 58-32-2, Dipyridamole 58-38-8, Prochlorperazine 58-39-9, Perphenazine 58-54-8, Ethacrynic acid 58-73-1, Diphenhydramine 58-94-6, Chlorothiazide 59-05-2, Methotrexate 59-66-5, Acetazolamide 59-87-0, Nitrofurazone 59-96-1, Phenoxybenzamine 61-56-3, Sulthiame 61-68-7, Mefenamic acid 61-72-3, Cloxacillin 64-18-6, Formic acid, biological studies 64-19-7, Acetic acid, biological studies 64-77-7, Tolbutamide 65-85-0, Benzoic acid, biological studies 66-76-2, Dicumarol 66-79-5, Oxacillin 67-20-9, Nitrofurantoin 68-04-2, Sodium citrate 68-11-1, Thioglycolic acid, biological studies 68-35-9, Sulfadiazine 69-23-8, Fluphenazine 69-72-7, biological studies 69-93-2, Uric acid, biological studies 72-44-6, Methaqualone 72-69-5, Nortriptyline 74-55-5, Ethambutol 75-75-2, Methanesulfonic acid 76-57-3, Codeine 76-74-4, Pentobarbital 76-99-3, Methadone 77-28-1, Butobarbital 77-36-1, Chlorthalidone 77-86-1, Tromethamine 77-92-9, biological studies 79-09-4, Propanoic acid, biological studies 79-10-7, Acrylic acid, biological studies 82-92-8, Cyclizine 83-68-1, Vitamin K6 83-69-2, Vitamin K7 83-70-5, Vitamin K5 83-89-6, Mepacrine 86-21-5, Pheniramine 86-22-6, Brompheniramine 86-35-1, Ethotoin 86-42-0, Amodiaquine 87-69-4, biological studies 89-57-6, Mesalamine 89-65-6, Isoascorbic acid 90-82-4, Pseudoephedrine 90-84-6, Diethylpropion 94-20-2, Chlorpropamide 97-23-4, Dichlorophen 99-66-1, Valproic acid 101-31-5, Hyoscyamine 102-71-6, biological studies 104-15-4, p-Toluenesulfonic acid, biological studies 107-15-3, 1,2-Ethanediamine, biological studies 107-92-6, Butyric acid, biological studies 110-15-6, Butanedioic acid, biological studies 110-16-7, 2-Butenedioic acid (2Z)-, biological studies 110-17-8, Fumaric acid, biological

biological studies 110-27-0, Isopropyl myristate 111-03-5, Glyceryl monooleate 111-62-6, Ethyl oleate 111-90-0, Transcutol 112-80-1, Oleic acid, biological studies 113-15-5, Ergotamine 113-45-1, Methylphenidate 113-59-7, Chlorprothixene 113-92-8 114-07-8, Erythromycin 115-38-8, Methylphenobarbital 117-89-5, Trifluoperazine 121-44-8, biological studies 122-09-8, Phentermine 122-20-3, Triisopropanolamine 124-04-9, Hexanedioic acid, biological studies 125-28-0, Dihydrocodeine 125-53-1, Oxyphencyclimine 125-84-8, Aminoglutethimide 127-09-3, Sodium acetate 127-33-3, Demeclocycline 127-69-5, Sulfafurazole 127-71-9, Sulfabenzamide 127-79-7, Sulfamerazine 128-13-2, Ursodeoxycholic acid 128-37-0, Butylated hydroxytoluene, biological studies 129-03-3, Cyproheptadine 129-20-4, Oxyphenbutazone 130-95-0, Quinine 132-17-2, Benztropine 138-36-3, p-Bromophenylsulfonic acid 139-33-3, Edetate disodium 141-43-5, biological studies 142-18-7, Glyceryl monolaurate 142-91-6, Isopropyl palmitate 143-07-7, Lauric acid, biological studies 144-11-6, Benzhexol 144-55-8, Sodium hydrogen carbonate, biological studies 144-62-7, Ethanedioic acid, biological studies 144-80-9, Sulfacetamide 144-83-2, Sulfapyridine 145-42-6, Taurocholic acid, sodium salt 146-22-5, Nitrazepam 146-54-3, Fluopromazine 148-79-8, Thiabendazole 151-21-3, Sodium dodecyl sulfate, biological studies 154-42-7, Thioguanine 190-39-6, Bisanthene 288-14-2, Isoxazole 298-57-7, Cinnarizine 299-42-3, Ephedrine 300-62-9, Amphetamine 302-79-4, Tretinoin 305-03-3, Chlorambucil 321-64-2, Tacrine 359-83-1, Pentazocine 361-37-5, Methysergide 364-62-5, Metoclopramide 389-08-2 396-01-0, Triamterene 404-86-4, Capsaicin 437-38-7, Fentanyl 439-14-5, Diazepam 442-52-4, Clemizole 443-48-1, Metronidazole 446-86-6, Azathioprine 458-24-2, Fenfluramine 463-79-6, Carbonic acid, biological studies 471-34-1, Calcium carbonate, biological studies 486-16-8, Carbinoxamine 500-92-5, Proguanil 511-12-6, Dihydroergotamine 514-65-8, Biperiden 519-23-3, Ellipticine 522-00-9, Ethopropazine 523-87-5, Dimenhydrinate 525-66-6 526-95-4, D-Gluconic acid 536-33-4, Ethionamide 537-21-3, Chlorproguanil 544-35-4, Ethyl linoleate 544-63-8, Myristic acid, biological studies 548-73-2, Droperidol 561-27-3, Diamorphine 564-25-0, Doxycycline 569-65-3, Meclozine 577-11-7, Docusate sodium 599-79-1, Sulfasalazine 603-50-9, Bisacodyl 604-75-1, Oxazepam 631-61-8, Ammonium Acetate 644-62-2, Meclofenamic acid 657-24-9, Metformin 668-94-0, 4,5-Diphenylimidazole 671-16-9, Procarbazine 723-46-6, Sulfamethoxazole 738-70-5, Trimethoprim 739-71-9, Trimipramine 745-65-3, Alprostadil 768-94-5, Amantadine 846-49-1, Lorazepam 846-50-4, Temazepam 848-75-9, Lormetazepam 865-21-4, Vinblastine 911-45-5, Clomiphene 915-30-0, Diphenoxylate 961-71-7, Phenbenzamine 968-81-0, Acetohexamide 1134-47-0, Baclofen 1156-19-0, Tolazamide 1309-42-8, Magnesium hydroxide 1310-58-3, Potassium hydroxide, biological studies 1310-73-2, Sodium hydroxide, biological studies 1327-43-1, Magnesium aluminum silicate 1330-80-9, Propylene glycol oleate 1333-28-4, Undecenoic acid 1335-30-4, Aluminum silicate 1336-21-6, Ammonium hydroxide 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan monooleate 1400-61-9, Nystatin 1404-90-6, Vancomycin 1406-05-9, Penicillin 1508-75-4, Tropicamide 1553-60-2, Ibufenac 1622-61-3, Clonazepam 1622-62-4, Flunitrazepam 1812-30-2, Bromazepam 1951-25-3, Amiodarone 1972-08-3, Dronabinol 2022-85-7, Flucytosine 2030-63-9, Clofazimine 2062-78-4, Pimozide 2078-54-8, Propofol 2447-57-6, Sulfadoxine 2487-39-0, Vitamin K-S (II) 2515-61-9, 1,5-Diphenylpyrazoline 2609-46-3, Amiloride 2709-56-0, Flupentixol 2898-12-6, Medazepam

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pharmaceutical compns. containing hydrophobic therapeutic agents and carriers containing ionizing agents and surfactants and triglycerides)

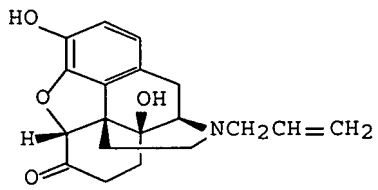
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD ALL CITATIONS AVAILABLE IN THE PE FORMAT

L122 ANSWER 26 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:587072 CAPLUS Full-text
DOCUMENT NUMBER: 121:187072
TITLE: Effect of **penetration** enhancers on transdermal absorption of insulin across human cadaver **skin**
AUTHOR(S): Roa, V. U.; Misra, A. N.
CORPORATE SOURCE: Fac. Technology & Engineering, M.S. Univ., Baroda, India
SOURCE: Drug Development and Industrial Pharmacy (1994), 20(16), 2585-91
CODEN: DDIPD8; ISSN: 0363-9045
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 15 Oct 1994
AB The transdermal diffusion of insulin, a model polypeptide drug, across the human cadaver skin (HCS) was evaluated in vitro, in presence of penetration enhancing solvents, anionic surfactants, biosurfactants, a natural moisturizing agent and combinations thereof. Also, an attempt was made to relate the enhanced penetration to phys. parameters like distribution coefficient, surface tension and viscosity. The results of the permeation expts. indicate that the permeation enhancers used in the present investigation significantly enhance the amount of drug entering into the HCS and the amount reaching to the skin. A synergistic effect on permeation enhancement was observed in cases where combination of permeation enhancers were selectively used. Reasons for this synergism were critically examined and established.
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 2
ST insulin absorption **skin penetration** enhancer
IT Surfactants
Bile salts
RL: BIOL (Biological study)
(insulin absorption by human cadaver skin enhancement by)
IT **Skin**
(insulin absorption by human cadaver, **penetration** enhancers of)
IT Biological transport
(absorption, of insulin, by human cadaver **skin**, **penetration** enhancers for)
IT 9004-10-8, Insulin, biological studies
RL: BIOL (Biological study)
(absorption of, by human cadaver **skin**, **penetration** enhancers for)
IT 57-13-6, Urea, biological studies 67-68-5, DMSO, biological studies 68-12-2, DMF, biological studies 145-42-6, Sodium taurocholate 302-95-4, Sodium deoxycholate 41945-48-6, Sodium tauroglycocholate 106392-12-5, Pluronic F127
RL: BIOL (Biological study)
(insulin absorption by human cadaver skin enhancement by)

L122 ANSWER 27 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:38372 CAPLUS Full-text
DOCUMENT NUMBER: 106:38372
TITLE: Enhancement of naloxone **penetration** through human **skin** in vitro using fatty acids, fatty alcohols, surfactants, sulfoxides and amides
AUTHOR(S): Aungst, Bruce J.; Rogers, Nancy J.; Shefter, Eli

CORPORATE SOURCE: Biomed. Prod. Dep., E. I. du Pont de Nemours and Co., Wilmington, DE, 19898, USA
SOURCE: International Journal of Pharmaceutics (1986), 33(1-3), 225-34
CODEN: IJPHDE; ISSN: 0378-5173
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 07 Feb 1987
GI



I

AB Human skin permeation of naloxone (I) [465-65-6] was studied in vitro using various vehicles and penetration enhancers. To screen various chemical as penetration enhancers propylene glycol [57-55-6] containing 10% adjuvant was used. Fatty acids and fatty alcs. were very effective promoters of I flux. In both the acid and alc. series, maximum flux was with C12 adjuvants, and for C18 acids and alcs. unsatd. adjuvants were more effective than saturated ones. Other effective skin penetration enhancers included some nonionic and cationic surfactants, decyl methyl sulfoxide [3079-28-5], Azone [59227-89-3], and N-alkylpyrrolidones. Lauric acid [143-07-7] and lauryl alc. [112-53-8] in iso-PrOH [67-63-0], polyethylene glycol 400 [25322-68-3], and mineral oil vehicles were not as effective in promoting I skin penetration as when dissolved in propylene glycol. Na lauryl sulfate [151-21-3] in propylene glycol slightly increased flux, but a much greater effect was observed using a mineral oil vehicle. Concentration/enhancement profiles were determined for lauric acid and lauryl alc. Skin penetration enhancing effects are, to some extent, specific and dependent on the drug, vehicle, enhancer concentration and probably other factors. Possible mechanisms of altering skin permeability are discussed.

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 1
ST naloxone **penetration skin** fatty acid; alc fatty naloxone **skin penetration**; surfactant naloxone **skin penetration**; sulfoxide naloxone **skin penetration**; amide naloxone **skin penetration**
IT Paraffin oils
RL: BIOL (Biological study)
(adjuvant containing, for naloxone **skin penetration** enhancement)
IT **Skin**, metabolism
(naloxone **penetration** through, adjuvants for enhancement of)
IT Surfactants
Amides, biological studies
Fatty acids, biological studies
Sulfoxides
RL: BIOL (Biological study)
(naloxone **skin penetration** enhancement by)
IT Hydrophile-lipophile balance value
(of surfactants, naloxone **skin penetration** in

relation to)
IT Alcohols, biological studies
RL: BIOL (Biological study)
(fatty, naloxone **skin penetration** enhancement by)
IT 57-55-6, Propylene glycol, biological studies 67-63-0, Isopropanol, biological studies 110-27-0, Isopropyl myristate 25322-68-3
RL: BIOL (Biological study)
(adjuvant containing, for naloxone **skin penetration** enhancement)
IT 9002-92-0, Laureth 23 9004-81-3 9005-02-1
RL: BIOL (Biological study)
(naloxon **skin penetration** enhancement by)
IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 57-13-6, Urea, biological studies 60-33-3, biological studies **67-68-5**, Dimethylsulfoxide, biological studies 97-78-9, Lauroyl sarcosine 110-91-8D, coco derivs. 111-14-8, Heptanoic acid 111-87-5, Caprylic alcohol, biological studies 112-05-0, Pelargonic acid 112-30-1, Decyl alcohol 112-38-9, Undecylenic acid 112-53-8, Lauryl alcohol 112-72-1, Myristyl alcohol 112-80-1, Oleic acid, biological studies 112-92-5, Stearyl alcohol 124-07-2, Caprylic acid, biological studies 124-22-1, Dodecylamine 124-30-1, Stearylamine 127-19-5, Dimethylacetamide 134-62-3 143-07-7, Lauric acid, biological studies 143-19-1, Sodium oleate 143-28-2, Oleyl alcohol **151-21-3**, Sodium lauryl sulfate, biological studies 302-79-4 334-48-5, Capric acid 463-40-1, Linolenic acid 506-32-1, Arachidonic acid 506-43-4, Linoleyl alcohol 506-44-5, Linolenyl alcohol 538-24-9, Glyceryl laurate 544-63-8, Myristic acid, biological studies 616-45-5D, Pyrrolidone, N-coco and N-tallow alkyl derivs. 629-25-4, Sodium laurate 693-23-2, Dodecanedioic acid 872-50-4, N-Methylpyrrolidone, biological studies 1338-39-2, Sorbitan laurate 1338-43-8, Sorbitan oleate 3079-28-5, Decylmethylsulfoxide 3445-11-2 4292-10-8 6402-36-4 6837-24-7, N-Cyclohexylpyrrolidone 7375-15-7 9003-11-6, Poloxamer 188 9004-98-2 9005-64-5, Polysorbate 20 10203-28-8 14350-96-0 18656-40-1, Dilauroyl **lecithin** 25496-72-4, Glyceryl oleate 26266-58-0, Sorbitan trioleate 27194-74-7, Propylene glycol laurate 27638-00-2 36653-82-4, Cetyl alcohol 59227-89-3, Azone
RL: BIOL (Biological study)
(naloxone **skin penetration** enhancement by)
IT 465-65-6, Naloxone
RL: BIOL (Biological study)
(**skin penetration** of, adjuvants for enhancement of)

L122 ANSWER 28 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2006-272647 [28] WPIX
DOC. NO. CPI: C2006-089073 [28]
TITLE: Monolithic **transdermal** system, preventing ovulation and for providing hormone replacement therapy, comprises drug reservoir comprising active agent; permeation enhancer; and vehicle in adhesive matrix composed of skin contact adhesive
DERWENT CLASS: A96; B05; B07
INVENTOR: CHIANG C
PATENT ASSIGNEE: (CORI-N) CORIUM INT INC; (CHIA-I) CHIANG C
COUNTRY COUNT: 110

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2006036899	A2	20060406	(200628)*	EN	35[10]	
US 20060121102	A1	20060608	(200639)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2006036899	A2	WO 2005-US34439	20050927
US 20060121102	A1 Provisional	US 2004-613663P	20040927
US 20060121102	A1	US 2005-237284	20050927

PRIORITY APPLN. INFO: US 2004-613663P 20040927
US 2005-237284 20050927

INT. PATENT CLASSIF.:
IPC ORIGINAL: A61K0009-70 [I,A]; A61K0031-185 [I,C]; A61K0031-19 [I,A]; A61K0031-56 [I,A]; A61K0031-57 [I,A]; A61K0009-70 [I,A]

BASIC ABSTRACT:

WO 2006036899 A2 UPAB: 20060502

NOVELTY - Monolithic **transdermal** system (A) for the administration of at least one active agent, comprises a drug reservoir (laminated to a backing layer) comprising an active agent (estrogens and/or progestins); an organic acid having a molecular weight of about 60-200 as a permeation enhancer; and a vehicle in an adhesive matrix composed of a skin contact adhesive (acrylate adhesives, silicone adhesives, or polyisobutylene adhesives).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a method for preventing ovulation and for providing hormone replacement therapy in a mammalian female, comprising applying (A) to a body surface of the female, where (A) comprises a low molecular weight organic acid as permeation enhancer; and (2) a method for administering an estrogen and/or a progestin, to a patient, comprising applying (A) to a body surface of the patient.

ACTIVITY - Endocrine-Gen.; Contraceptive; Gynecological.

MECHANISM OF ACTION - None given.

USE - (A) is useful for preventing ovulation and for providing hormone replacement therapy in a mammalian female (claimed).

ADVANTAGE - (A) is an improved **transdermal** delivery formulation for the delivery of steroids such as estrogens and progestins, in which drug administration is efficient, i.e. exhibiting a high rate of transport, or flux, through the skin, due to the presence of the low molecular weight organic acid and minimizes the unwanted side effects. (A) excludes any potentially toxic vehicles or enhancers (such as **dimethyl sulfoxide**) and be readily manufacturable using straightforward means, for instance avoiding the inclusion of multiple layers. The ability of (A) to provide improved flux of the active agent (preferably norelgestromin) was evaluated in vitro. The results showed that (A) provided improved drug flux compared to the test formulation, which does not contain lactic acid. MANUAL CODE: CPI: A12-V01; B01-A02; B01-C05; B01-D01; B01-D02; B04-C02B1; B04-C03A; B07-D03; B07-D04C; B10-C02; B10-C04D; B10-E04C; B10-G02; B14-P01B

TECH

ORGANIC CHEMISTRY - Preferred Components: The organic acid is an alpha-hydroxy acid (lactic acid (preferred), glycolic acid, citric acid, tartaric acid or malic acid). The lactic acid represents about 0.5-15 (preferably 1-5) wt.% of the drug reservoir.

PHARMACEUTICALS - Preferred Components: The drug reservoir comprises a combination of an estrogen and a progestin, and further includes an androgen and an adhesive matrix modifier (cross-linked polyvinyl pyrrolidone). The estrogen is ethinyl estradiol and the progestin is norelgestromin. The androgen is testosterone, a testosterone ester,

dehydroepiandrosterone, or 4-dihydrotestosterone. The vehicle represents about 2-40 (preferably 2-20) wt.% of the drug reservoir and is 1 to 6 branched, linear, cyclic, saturated and unsaturated monohydric alcohols; polyols (preferably propylene glycol) and their esters; N-methylpyrrolidone; and/or 1-4C alkanol esters of lactic acid (preferably ethyl lactate). The vehicle is an additional permeation enhancer (alcohols; alkanones; alkanones; amides and other nitrogenous compounds; 1-substituted azacycloheptan-2-ones; **bile salts**; **cholesterol**; cyclodextrins and substituted cyclodextrins; ethers; saturated and unsaturated fatty acids; saturated and unsaturated fatty acid esters; monoglycerides; organic acids; methyl nicotinate; pentadecalactone; polyols and their esters; phospholipids; sulfoxides; surfactants; and/or terpenes, preferably saturated and unsaturated fatty alcohol esters; glycerides such as lauryl lactate, labrafil or triacetin). The active agent represents about 1-20 wt.% of the drug reservoir. The ovulation-preventing amounts are effective to deliver about 10-35 micrograms/day of ethinyl estradiol and about 150-350 micrograms/day of norelgestromin.

L122 ANSWER 29 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2006-282996 [29] WPIX
CROSS REFERENCE: 2006-282994; 2006-282997; 2006-500586
DOC. NO. CPI: C2006-092231 [29]
TITLE: Composition for the delivery of cosmetic and pharmaceutical agent through the skin comprises two biocompatible organic solvents including ester and dihydric/polyhydric alcohol, polar lipid, surfactant, water, urea and thickener
DERWENT CLASS: A11; A17; A25; A96; B05; D21; D22
INVENTOR: DECHOW F J
PATENT ASSIGNEE: (MEDI-N) MEDIQUEST THERAPEUTICS INC
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20060078579	A1	20060413	(200629)*	EN	10[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20060078579	A1 CIP of	US 2004-960516	20041008
US 20060078579	A1	US 2005-66485	20050228

PRIORITY APPLN. INFO: US 2005-66485 20050228
US 2004-960516 20041008
INT. PATENT CLASSIF.:
IPC ORIGINAL: A61K0008-30 [I,C]; A61K0008-37 [I,A]
BASIC ABSTRACT:
US 20060078579 A1 UPAB: 20060505
NOVELTY - A composition (C1) comprises two biocompatible organic solvents, polar lipid, surfactant, water, urea and thickener. The organic solvents are ester (2 - 30%), and dihydric alcohol and/or polyhydric alcohol (2 - 20%).
USE - For the delivery of cosmetic and pharmaceutical agent through the skin of a mammal (including epidermis tissue of a human or animal) (claimed) useful for treating peripheral arterial diseases (e.g. Raynaudh's Disease, diabetic paresthesia, and night leg cramps); infectious diseases of the skin (e.g. onychomycois, athlete's foot, rosacea, and vaginomycosis); actinic keratosis;

autoimmune disease (e.g. cutaneous lupus erythrematosus, urticaria, psoriasis, and atopic dermatosis), dry skin conditions (e.g. xerosis, scleroderma, and ichthyosis) and inflammatory conditions.

ADVANTAGE - The composition allows the formulation with the agent(s) to be rapidly absorbed through the skin and also to have a pleasing, non-greasy, non-oily appearance and feel. MANUAL CODE: CPI: A12-V; A12-V01; A12-V04C; B04-B01B; B04-C02A2;
B04-C03B; B04-C03C; B05-A01B; B05-B01P; B07-D05; B07-D09; B10-A05; B10-A07E; B10-A09B; B10-A13C; B10-A22; B10-B03B; B10-B04B; B10-C02; B10-E04C; B10-G02; **B12-M02F**; B12-M09; B14-A01; B14-A02; B14-F02D; B14-N17; B14-R01; D08-B; D08-B09A1; D09-A

TECH

BIOLOGY - Preferred Components: The polar lipid is at least one of **lecithin** or phosphalidylcholine.

ORGANIC CHEMISTRY - Preferred Components: The ester is a fatty monoester (preferably isopropyl ester, especially isopropyl myristate or isopropyl palmitate, particularly isopropyl myristate), and is obtainable by replacing the active hydrogen of 4-22C fatty acid by the alkyl group of 2-8C monohydric alcohol. The dihydric/polyhydric alcohol is 3-8C alkane alcohol (preferably propylene glycol or glycerol, especially propylene glycol). The surfactant is docusate sodium, docusate sodium benzoate, docusate calcium, tetradecyltrimethylammonium bromide, pentaoxyethylene glycol monododecyl ether, or triethanolamine laureth sulfate. The vasodilating agent is glyceryl trinitrate. The decalcifying skin agent is lactic acid.

PHARMACEUTICALS - Preferred Composition: (C1) comprises (wt.%) polar lipid (10 - 30); surfactant (0.5 - 15), water (40 - 65), urea (1 - 15) and thickener (0.05 - 5). (C1) further comprises cosmetic agent and/or pharmaceutical agent (0.001 - 30 wt.%), vasodilating agent (0.2 - 1.8%), antimicrobial agent (1 - 12%), inhibitor of cell growth or proliferation (0.001 - 10%), inhibitor of polyamine transport (0.001 - 5%), inhibitor of polyamine synthesis (0.005 - 5%), antizyme inducer (0.001 - 5%), decalcifying skin agent (0.5 - 10%) or at least two active ingredients; and has a pH of 5.5 - 7.5 (preferably 6 - 7). Preferred Agent: The antimicrobial agent is ciclopirox, miconazole, itraconazole, terbinafine, naftifine metronidazole, allylamine and/or their salt. The inhibitor of cell growth or proliferation is 2-deoxy-D-glucose.

POLYMERS - Preferred Components: The thickener is polyethylene glycol, methyl cellulose, or carbomer.

L122 ANSWER 30 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2006-282994 [29] WPIX
CROSS REFERENCE: 2006-282996; 2006-282997; 2006-500586
DOC. NO. CPI: C2006-092229 [29]
TITLE: Composition, useful for local delivery of cosmetic and/or pharmaceutical agents into skin, comprises e.g. two biocompatible organic solvents (e.g. an ester), polar lipid, surfactant, water, urea and thickener
DERWENT CLASS: A11; A17; A25; A96; B05; D21; D22
INVENTOR: DECHOW F J
PATENT ASSIGNEE: (MEDI-N) MEDIQUEST THERAPEUTICS INC
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20060078577	A1	20060413	(200629)*	EN	10[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20060078577	A1	US 2004-960516	20041008

PRIORITY APPLN. INFO: US 2004-960516 20041008
INT. PATENT CLASSIF.:
IPC ORIGINAL: A61K0008-30 [I,C]; A61K0008-37 [I,A]
BASIC ABSTRACT:
US 20060078577 A1 UPAB: 20060505
NOVELTY - Composition (I) for the delivery of at least one cosmetic and/or pharmaceutical agent through the skin of a mammal, comprises two biocompatible organic solvents (comprising an ester, a dihydric alcohol and/or polyhydric alcohol), a polar lipid, at least one or more surfactant, water, urea and thickener, where (I) comprises 2-30% of ester and 2-20% of di hydric alcohol and/or polyhydric alcohol.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the method of making a composition (I) suitable for cutaneous delivery of an active substance.
USE - (I) is useful for local cutaneous delivery of cosmetic and/or pharmaceutical agents into skin of a mammal (claimed).
ADVANTAGE - (I) allows the rapid absorption of the active ingredients through the skin and has pleasing, non-greasy and **non -oily** appearance and feel. (I) is easy to apply topically and frequently used and does not require cleansing to remove the agent. MANUAL CODE: CPI: A12-V01; A12-V04C; B04-B01B; B04-C02A2; B04-C03B;
B04-C03C; B05-A01B; B05-B01P; B10-A05; B10-A07E;
B10-A09A; B10-A09B; B10-A22; B10-B03B; B10-C02; B10-E04C;
B10-G02; **B12-M02F**; B12-M09; B14-A01; B14-A02;
B14-F02D; B14-H05; B14-N17; D08-B; D08-B09A1; D09-A
TECH
ORGANIC CHEMISTRY - Preferred Components: The ester is a fatty monoester and is obtainable by replacing the active hydrogen of a 4-22C fatty acid by the alkyl group of a 2-8C monohydric alcohol. The ester is an isopropyl ester (isopropyl myristate (preferred) or isopropyl palmitate). The dihydric or polyhydric alcohol is a 3-8C alkane alcohol (propylene glycol (preferred) or glycerol). The polar lipid is at least one of **lecithin** or phosphatidylcholine. The surfactant is docusate sodium, docusate sodium benzoate, docusate calcium, tetradecyl trimethylammonium bromide, penta-oxyethylene glycol monododecyl ether or triethanolamine laureth sulfate. The thickener is polyethylene glycol, methylcellulose or carbomer.
PHARMACEUTICALS - Preparation (Claimed): Preparation of (I) comprises:
(A) dissolving a polar lipid, at least in two biocompatible organic solvents comprising at least one ester and at least one dihydric or polyhydric active;
(B) adding one or more surfactants to the composition of step (a); dissolving the active compound in the solvent-polar lipid, surfactant mixture of step (b); adding urea and a thickener to water; and combining the composition from (c) and (d) and if necessary adjusting the pH to 5.5-7.5.
Preferred Composition: (I) comprise 10-30 wt.% of the polar lipid, 0.5-15 wt.% of the surfactant, 40-65 wt.% of water, 1-15 wt.% of urea, and 0.05-5 wt.% of thickener. (I) further comprises about 0.001-30 wt.% of at least one of a cosmetic agent and/or pharmaceutical agent, 0.2-1.8% of a vasodilating agent (glyceryl trinitrate), 1-12% of an antimicrobial agent (ciclopirox, itraconazole, metronidazole or terbinafine), 0.001-10% of an inhibitor of cell growth or proliferation (2-deoxy-D-glucose), 0.001-5% of an inhibitor of polyamine transport or 0.005-5% of an inhibitor of

polyamine synthesis, 0.001-5% of an antizyme inducer, 0.5-10% of a decalcifying skin agent (preferably lactic acid) and at least two active ingredients. (I) has a pH of about 5.5-7.5 (preferably 6-7).

L122 ANSWER 31 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-252244 [26] WPIX
CROSS REFERENCE: 2003-697452; 2005-444089
DOC. NO. CPI: C2005-079795 [26]
TITLE: Composition useful e.g. for the translocation of an effector (e.g. **insulin**) across a biological barrier, and for treatment of e.g. dementia and Parkinson's disease, comprises an effector and a counter ion to the effector
DERWENT CLASS: A96; B04; B05; D16
INVENTOR: BEN-SASSON S A; COHEN E
PATENT ASSIGNEE: (BENS-I) BEN-SASSON S A; (COHE-I) COHEN E
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20050058702	A1	20050317	(200526)*	EN	12[0]	A61K031-727

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20050058702	A1	US 2003-664989	20030917

PRIORITY APPLN. INFO: US 2003-664989 20030917
INT. PATENT CLASSIF.:
MAIN: A61K031-727
SECONDARY: A61K031-737; A61K009-20; A61K009-48
BASIC ABSTRACT:
US 20050058702 A1 UPAB: 20060122
NOVELTY - Composition (A) for translocation of at least one effector across a biological barrier comprises at least one effector (I) and a counter ion (II) to (I).
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) translocating at least one effector across a biological barrier comprising introducing (A) to a biological barrier and allowing (A) to translocate across the biological barrier, thereby translocating the at least one effector across the biological barrier; (2) a method of mucosal vaccination comprising administering (A) (where the at least one effector comprises an antigen to which vaccination is desirable) to a subject; (3) a kit comprising (A) in one or more containers; and (4) preparation of (A).
ACTIVITY - Endocrine-Gen.; Antidiabetic; Antiinfertility; Osteopathic; Ophthalmological; Neuroprotective; Nootropic; Antiparkinsonian; Anticonvulsant; Cardiovascular-Gen.; Antiarteriosclerotic; Anticoagulant; Cardiant; Vasotropic; Cerebroprotective; Anorectic; Nephrotropic; Antianemic; Immunomodulator; Antirheumatic; Immunosuppressive; Antimicrobial; Virucide; Antibacterial; Fungicide; Antiparasitic; Cytostatic; Analgesic; Antidepressant; Antiinflammatory.
MECHANISM OF ACTION - None given.
USE - (A) is useful to translocate a variety of different substances (e.g. **insulin**) across a biological barrier regulated by tight junctions (e.g. mucosal epithelia). (A) is useful to treat or prevent a disease or pathological condition (endocrine disorders, diabetes, infertility, hormone deficiencies, osteoporosis, ophthalmological disorders, neurodegenerative

disorders, Alzheimer's disease, dementia, Parkinson's disease, multiple sclerosis, Huntington's disease, cardiovascular disorders, atherosclerosis, hyper-coagulable states, hypo-coagulable states, coronary disease, cerebrovascular events, metabolic disorders, obesity, vitamin deficiencies, renal disorders, renal failure, hematological disorders, anemia of different entities, immunologic and rheumatologic disorders, autoimmune diseases, immune deficiencies, infectious diseases, viral infections, bacterial infections, fungal infections, parasitic infections, neoplastic diseases, multi-factorial disorders, impotence, chronic pain, depression, different fibrosis states and short stature) (all claimed). (A) is useful for mucosal vaccination. (A) is useful for administering monoclonal antibodies. No biological data given.

ADVANTAGE - (A) exhibits efficient, non-invasive delivery of an unaltered biologically active substance. MANUAL CODE: CPI: A12-V01; B01-D02; B04-A08C2; B04-A10G; B04-B01C1; B04-B03A; B04-B04C1; B04-C01; B04-C02; B04-C03B; B04-C03C; B04-H02B; B04-H04; B04-H05; B04-J03A; B04-J04A; B04-J04B; B04-J05J; B04-N02; B04-N04; B04-N06; B05-B01A; B05-B01J; B05-B01P; B07-H; B10-A08; B10-A09B; B10-A10; B10-A17; B10-B01B; B10-B02B; B10-C04B; B10-C04C; B10-C04E; B10-D03; B10-E04D; B10-G02; B12-M09; B14-A01; B14-A04; B14-B02; B14-C01; B14-C03; B14-C06; B14-D01; B14-D01A; B14-D07C; B14-E12; B14-F01; B14-F02; B14-F03; B14-F04; B14-F07; B14-F08; B14-G02D; B14-G03; B14-H01B; B14-J01; B14-N01A; B14-N03; B14-N07; B14-N10; B14-N16; B14-P02; B14-S01; B14-S04; B14-S11; B14-S11A; B14-S13; B14-S16; D05-A02; D05-H07; D05-H11; D05-H12A

TECH

PHARMACEUTICALS - Preparation: Preparation of (A) comprises lyophilizing (I) and (II) and reconstituting the lyophilized materials in an aqueous, partially aqueous or organic solvent, thereby producing the composition. Preferred Components: (II) is an ionic liquid forming cation. (A) comprises an excipient and/or carrier. (A) is contained within a capsule. (A) may be in the form of a tablet, an aqueous dispersion, a cream, ointment or suppository and it is enteric-coated. (I) is an anionic impermeable molecule (a polysaccharide (a glycosaminoglycan (heparin, heparan sulfate, chondroitin sulfate, dermatan sulfate, hyaluronic acid or their salts)) or a bioactive molecule (**insulin**, erythropoietin, glucagon-like peptide 1, a melanocyte stimulating hormone, parathyroid hormone, growth hormone, calcitonin, interleukin-2, alpha1-antitrypsin, granulocyte/monocyte colony stimulating factor, granulocyte colony stimulating factor, T20, anti-tumor necrosis factor antibodies, interferon alpha, interferon beta, interferon gamma, lutenizing hormone, follicle-stimulating hormone, enkephalin, dalargin, kyotorphin, basic fibroblast growth factor, hirudin, hirulog, lutenizing hormone releasing hormone analog, brain-derived natriuretic peptide or neurotrophic factors)). (I) is a pharmaceutically active agent (a hormone, a growth factor, a neurotrophic factor, an anticoagulant, a bioactive molecule, a toxin, an antibiotic, an anti-fungal agent, an antipathogenic agent, an antigen, an antibody, an antibody fragment, an immunomodulator, a vitamin, an antineoplastic agent, an enzyme or a therapeutic agent). (I) is a nucleic acid or a nucleic acid mimetic (a DNA or DNA-mimetic, a RNA or RNA-mimetic). The ionic liquid forming cation is imidazolium derivatives (1-R1-3-R2-imidazolinium (1) (preferably 1-ethyl-3-methylimidazolium, 1-butyl-3-methylimidazolium, 1-hexyl-3-methylimidazolium, 1-methyl-3-octylimidazolium, 1-methyl-3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoroctyl)-imidazolium, 1,3-dimethylimidazolium or 1,2-dimethyl-3-propylimidazolium)), pyridinium derivatives (1-R1-3-R2'-pyridinium (2) (preferably 3-methyl-1-propylpyridinium, 1-butyl-3-methylpyridinium or 1-butyl-4-methylpyridinium)), phosphonium compounds or tetralkylammonium compounds. The imidazolium derivative

further comprises a halogen or an alkyl group substitution. The pyridinium derivative further comprises a halogen or an alkyl group substitution. (A) further comprises a hydrophobic carrier (free fatty acids, mono-glycerides, di-glycerides, tri-glycerides (preferably tricaprin), ethers (preferably benzyl benzoate) or **cholesterol** esters of fatty acids) and at least one protective agent (a protease inhibitor (aprotinin, Bowman-Birk inhibitor, soybean trypsin inhibitor, chicken ovomucoid, chicken ovoinhibitor, human pancreatic trypsin inhibitor, camostat mesilate, flavonoid inhibitors, antipain, leupeptin, p-aminobenzamidine, 4-(2-aminoethyl)benzenesulfonyl fluoride (AEBSF), N-(5-amino-1-chloroacetyl-pentyl)-4-methyl-benzenesulfonamide (TLCK), (4-amidino-phenyl)-methane-sulfonyl fluoride (APMSF), diisopropylfluorophosphate) (DFP), phenylmethylsulfonylfluoride (PMSF), poly(acrylate) derivatives, chymostatin, benzyloxycarbonyl-Pro-Phe-CHO, FK-448, sugar biphenylboronic acids complexes, beta-phenylpropionate, elastatinal, methoxysuccinyl-Ala-Ala-Pro-Val-chloromethylketone (MPCMK), ethylene diamine tetra acetic acid (EDTA), chitosan-EDTA conjugates, amino acids, di-peptides, tripeptides, amastatin, bestatin, puromycin, bacitracin, phosphinic acid dipeptide analogs, alpha-aminoboronic acid derivatives, sodium glycocholate, 1,10-phenantroline, acivicin, L-serine-borate, thiorphan, or phosphoramidon). (A) further contains a poly anionic molecule (phytic acid) and a surface active agent (a poloxamer, solutol HS15, cremophore, phospholipids or bile acids). (A) is dissolved in an at least partially water soluble solvent (n-butanol, isoamyl (isopentyl) alchohol, iso-butanol, iso-propanol, propanol, ethanol, tert-butanol alcohols, polyols, dimethyl formamide, **dimethyl sulfoxide**, ethers, amides and/or esters). (A) contains one or more lyophilized components. (A) further comprises a mixture of at least two substances (a non-ionic detergent (a poloxamer (pluronic F-68) or solutol HS 15), an ionic detergent (a **bile salt** (taurodeoxycholate)), a protease inhibitor (aprotonin or soy bean trypsin inhibitor) or a reducing agent (N-acetyl-L-cysteine (NAC)). The antigen for vaccination is protective antigen (used as a vaccine against Anthrax) or Hepatitis B surface antigen (used as a vaccine against Hepatitis B). The at least one other constituent is a member of pluronic F-68, Aprotinin, Solutol HS-15, N-Acetyl Cysteine or Tricaprin. The effector further comprises a chemical modification. The chemical modification comprises the attachment of one or more polyethylene glycol residues to the effector. The ionic liquid forming cation is a constituent of a water soluble salt.

Preferred Methods: The translocation across a biological barrier (tight junctions or plasma membranes) occurs within a tissue of epithelial cells or endothelial cells. The biological barrier comprises gastro-intestinal mucosa or blood brain barrier. (A) is administered using parenteral (intraorbit) route to treat an ophthalmological disorder. The lyophilizing step alternatively comprises lyophilizing the effector and the counter ion with phytic acid or any other constituent of a pharmaceutical excipient or carrier. The reconstituting step alternatively comprises reconstituting the lyophilized materials and at least one other constituent of the composition in an aqueous, partially aqueous or organic solvent.

R1, R2 = 1-12C alkyl

R2' = H or 1-12C alkyl

L122 ANSWER 32 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 2004-203571 [19] WPIX

DOC. NO. CPI: C2006-033058 [10]

TITLE: Pharmaceutical composition useful for treating e.g. inflammatory pathologies and skeletal muscle infirmities comprises ketoprofen, sulisobenzone and butyl hydroxy anisole

DERWENT CLASS: A96; B05
INVENTOR: BACCANI C C, BACCANI CARIDI C; ROSETTI A
PATENT ASSIGNEE: (MENA-C) MENARINI IND FARM RIUNITE SRL A; (MENA-C) MENARINI IND FARM RIUNITE SRL
COUNTRY COUNT: 105

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2004012725	A1	20040212	(200419)*	EN	31[0]	
AU 2003251659	A1	20040223	(200453)	EN		
EP 1526849	A1	20050504	(200530)	EN		
TW 2004004567	A	20040401	(200568)	ZH		A61K047-08
CN 1671369	A	20050921	(200610)	ZH		
EP 1526849	B1	20060405	(200624)	EN		
DE 60304478	E	20060518	(200637)	DE		
IT 1333668	B	20060509	(200638)	IT		A61K009-00
ES 2261973	T3	20061116	(200677)	ES		A61K031-19
DE 60304478	T2	20061123	(200679)	DE		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004012725	A1	WO 2003-EP8351	20030729
IT 1333668	B	IT 2002-FI144	20020801
TW 2004004567	A	TW 2003-119904	20030722
AU 2003251659	A1	AU 2003-251659	20030729
CN 1671369	A	CN 2003-818535	20030729
DE 60304478	E	DE 2003-604478	20030729
EP 1526849	A1	EP 2003-766339	20030729
EP 1526849	B1	EP 2003-766339	20030729
DE 60304478	E	EP 2003-766339	20030729
ES 2261973	T3	EP 2003-766339	20030729
EP 1526849	A1	WO 2003-EP8351	20030729
EP 1526849	B1	WO 2003-EP8351	20030729
DE 60304478	E	WO 2003-EP8351	20030729
DE 60304478	T2	DE 2003-604478	20030729
DE 60304478	T2	EP 2003-766339	20030729
DE 60304478	T2	WO 2003-EP8351	20030729

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
DE 60304478	E	Based on	EP 1526849	A
ES 2261973	T3	Based on	EP 1526849	A
AU 2003251659	A1	Based on	WO 2004012725	A
EP 1526849	A1	Based on	WO 2004012725	A
EP 1526849	B1	Based on	WO 2004012725	A
DE 60304478	E	Based on	WO 2004012725	A
DE 60304478	T2	Based on	EP 1526849	A
DE 60304478	T2	Based on	WO 2004012725	A

PRIORITY APPLN. INFO: IT 2002-FI144 20020801
INT. PATENT CLASSIF.:
MAIN: A61K031-19; A61K047-08; A61K009-00
SECONDARY: A61P029-00
IPC ORIGINAL: A61K0031-185 [I,C]; A61K0031-185 [I,C]; A61K0031-19 [I,A]

A61K0031-19 [I,A]; A61P0029-00 [I,A]; A61P0029-00 [I,C]; A61P0029-00 [I,A]

IPC RECLASSIF.: A61K0031-185 [I,C]; A61K0031-19 [I,A]

BASIC ABSTRACT:

WO 2004012725 A1 UPAB: 20060121

NOVELTY - A pharmaceutical composition (I) comprises ketoprofen (a) in the form of free acid and/or its salt, sulisobenzone (b) and butyl hydroxy anisole (c) optionally in combination with an excipient.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a composition comprising (a) in the form of spray gel and a propeller under pressure.

ACTIVITY - Antiinflammatory; Muscular-Gen.; Analgesic.

MECHANISM OF ACTION - None given.

USE - In the treatment of inflammatory pathologies or skeletal muscle infirmities (e.g. myalgia, myositis, sprains, contusions) (all claimed).

ADVANTAGE - The formulation allows photostability; has no or very low irritant effect on the skin; is well tolerated and shows an adequate **penetration** across the **skin**; shows adequate in vitro permeation; has negligible phototoxic and photoallergenic effects; has reduced formation of photodegradation impurities and optimum analgesic efficiency. The spray gel formulations show high analgesic effect as compared to Fastum (RTM; gel carbomer based hydroalcoholic gel). The formulations show a marked reduction (total impurities = 0.73%) in the photodegradation of ketoprofen as compared to Ketum (RTM) gel (total impurities = 6.70%). A composition (test) comprising (unit not given): ketoprofen (2.5), Carbomer 940 (RTM) (1.8), ethyl alcohol (32), lavender oil (0.1), benzophenone-4 (4), triethanolamine (q.s.), butyl hydroxy anisole (0.05) and water (balance) was prepared. Fastum (RTM) was used as control. The test/control compositions showed photo-irritation factor of 57.62/65.05.

MANUAL CODE: CPI: A12-V01; B04-C02A2; B04-C02D; B04-C03A; B04-C03B; B05-B02C; B10-A09B; B10-A10; B10-A13C; B10-A17; B10-B01B; B10-B03B; B10-C04C; B10-D03; B10-E02; B10-E04C; B11-C03; B12-M01A; B12-M02B; B12-M03; B14-C01; B14-C03; B14-J05

TECH

ORGANIC CHEMISTRY - Preferred Composition: The pharmaceutical composition comprises (wt.%): (a) (2.5 - 3), benzophenone-4 (sulisobenzone) (2 - 4), (c) (0.05 - 0.2, preferably 0.075 - 0.15), permeability promoter (0 - 20), fragrance (0 - 0.5), ethanol (20 - 50) and purified water (100). The composition additionally comprises additives. Preferred Components: (a) Is a racemic mixture of two isomers or its salts (preferably S-(+) isomer or its salt). (a) Comprises a mixture formed from the acid form and by the salified form. The amount of (a) as free acid is 0.5 - 5 (preferably 2 - 5, especially 2.5 - 3) wt.% and as its S-(+) isomer is 0.5 - 2.5 (preferably 1 - 2.5, especially 1.25 - 1.5) wt.%. (a) Is tromethamine, hydroxy ethylamine, di(hydroxyethyl)-amine, tri(hydroxyethyl)-amine, lysine or arginine. The excipient is adjuvants, vitamins, thickeners, humectants, fragrances, electrolytes, gelifier, **emulsifiers**, **emulsion** stabilizers, preservant, liposomes, ethyl alcohol, diethylene glycol monoethyl ether, medium chain triglyceride EP, urea, **dimethyl sulfoxide** (DMSO), isoparaffin laureth-7 or panthenol. The propeller is nitrogen under pressure or tetrafluoroethane-134a (preferably tetrafluoroethane-134a).

INORGANIC CHEMISTRY - Preferred Components: (a) Is the form of salts of Na, K, Ca or Mg.

POLYMERS - Preferred Components: The excipient is protective colloid, polyoil, polymers, copolymers, carbomer, xanthum gum, carrageenan, acacia gum, guar gum, agar gel, alginates, methyl hydroxy cellulose, carboxymethylcellulose, hydroxypropyl cellulose, hydroxypropyl methyl cellulose, hydroxyethyl cellulose, ethyl cellulose, polyacrylate, polyvinyl alcohol, polyvinylpyrrolidine or colloidal silica.

L122 ANSWER 33 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-748028 [70] WPIX
DOC. NO. CPI: C2003-204943 [70]
TITLE: Adhesive patch used to deliver pharmaceutical and cosmetic agents to skin surface of human, comprises cosmetic formulation having cosmetic agent, solvent, skin absorption enhancer, and pressure sensitive adhesive and polymer
DERWENT CLASS: A18; A28; A96; B04; D21; D22; E19
INVENTOR: BUSEMAN T; COOKE D; ROLF D
PATENT ASSIGNEE: (BUSE-I) BUSEMAN T; (COOK-I) COOKE D; (LECT-N) LECTEC CORP; (ROLF-I) ROLF D
COUNTRY COUNT: 100

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003063817	A1	20030807	(200370)*	EN	76[12]	A61K007-48
US 20030152610	A1	20030814	(200370)	EN		A61K009-70
AU 2003210678	A1	20030902	(200422)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003063817	A1	WO 2003-US2425	20030128
US 20030152610	A1	US 2002-60060	20020128
AU 2003210678	A1	AU 2003-210678	20030128

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2003210678	A1	Based on	WO 2003063817 A

PRIORITY APPLN. INFO: US 2002-60060 20020128
INT. PATENT CLASSIF.:
MAIN: A61K007-48; A61K009-70

BASIC ABSTRACT:

WO 2003063817 A1 UPAB: 20050601

NOVELTY - An adhesive patch (1) has flexible backing (2) having front and back sides (4); and cosmetic formulation having cosmetic agent, solvent, skin absorption enhancer, and pressure sensitive adhesive and polymer. The formulation is on a portion of the front or back side of the backing.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for adhesive mask (23) comprising first (24) and second (25) portions each having the flexible backing and cosmetic formulation, the first portion having 2 apertures for the eyes of a person's face such that the front side of the backing adhesively attaches to skin surface of the person's face near the eyes, and the second portion having an aperture corresponding to the mouth of the person's face such that the front side of the backing adhesively attaches to skin surface of the person's face near the mouth.

ACTIVITY - Dermatological.

No biological data given.

MECHANISM OF ACTION - Collagen Synthesis Inhibitor; Fibroblast Growth Stimulator; Collagen Cross-linking Inhibitor; Antioxidant; Free Radical Scavenger.

USE - The patch is used to deliver pharmaceutical and cosmetic agents to skin surface of human. It is used to improve appearance of wrinkles, to exfoliate

skin surface of mammals, to hydrolyze the skin surface, and for firming the skin surface (claimed).

ADVANTAGE - The patch has high degree of penetration of the formulation in the backing. It is convenient, safe, and easy to use. DESCRIPTION OF DRAWINGS - The figure illustrates specific adhesive skin patch.

Adhesive patch (1)
Backing (2)
Back side (4)
Face mask (23)
First portion (24)
Second portion (25)

MANUAL CODE: CPI: A12-V04C; B01-D02; B03-A; B03-F; B03-H; B04-A06; B04-A08; B04-A10; B04-B04L; B04-C02B1; B04-C03; B04-H06G; B04-N04; B05-A02; B05-A03A; B05-B01P; B05-B02C; B06-D09; B07-A04; B07-D09; B10-A07; B10-A10; B10-A17; B10-C03; B10-C04D; B10-C04E; B10-E04C; B10-E04D; B10-G02; B11-C03; B11-C04; B12-M02D; **B12-M02F**; B14-N17; D08-B09A; D09-C04B; D09-E; E01; E05-G09C; E06-A01; E06-D09; E07-A01; E07-A02B; E07-A02D; E07-A04; E07-D09B; E10-A10A; E10-A17B; E10-C02B; E10-C02F; E10-C03; E10-C04D4; E10-E04G; E10-E04H; E10-E04L4; E10-E04L5; E10-E04M1; E10-G02G2; E10-G02H2A; E10-J02C4; E31-Q07; E31-Q08

TECH

POLYMERS - Preferred Materials: The backing comprises polycellulose fibers, polyester fibers, polyurethane fibers, polyolefin fibers, polyamide fibers, and/or cotton fibers. It has open cell foam consisting of polyurethane, polyvinyl chloride, and/or polyethylene. The solvent comprises polyhydric alcohol and/or water. The polyhydric alcohol is glycerine, propylene glycol, ethylene glycol, and/or triethylene glycol.

Preferred Compounds: The polymer includes quat. ammonium salt, gum tragacanth, gum Ghatti, gum agar, pectin, chitin and its derivative, carrageenan, calcium cross-linked alginate, cross-linked polymer by boron or di- or tri-valent metal ion, aldehyde cross-linked gelatin, gelatin, karaya, polyacrylamide, polyacrylic acid, xanthan gum, guar gum, natural polymer, synthetic polymer, hydrophilic polymer, hydrocolloidal polymer, starch, vinyl acetate copolymer, polyvinyl pyrrolidone, polyethylene oxide, algin (or its derivatives), polyacrylate, polymaleic acid, polymaleic anhydride, polyurethane, polyurea, gum acacia, locust bean gum, modified guar gum, maltodextrin, carboxymethylcellulose, carboxypropyl cellulose, polyvinyl alcohol, poly AMPS and/or sodium polyacrylate.

At least one portion of the backing is treated with a sizing agent such that the portion of the backing that is treated with the sizing agent has a surface energy of about 20 - 65 dynes/cm2. The sizing agent is a fluorocarbon solution and/or silicone containing compound. The silicone containing compound consists of polydimethyl siloxane, dialkyl siloxane, dimethylsiloxo vinyl alkene, diakylsiloxo vinyl alkene, dimethylsiloxo acrylate, dialkylsiloxo acrylate, vinyl terminated polydimethylsiloxane, and/or vinyl terminated polydialkylsiloxane. The fluorocarbon solution comprises e.g. Vilmed M1585 W/HY, Vilmed M1585H/HY, Vilmed M1586 W/HY or Vilmed M1586 H/HY. The sizing agent is used to treat at least the entire front side of the backing and the sizing agent penetrates at least a portion of the underlying surface of the front side of the backing.

Preferred Adhesive: The pressure sensitive adhesive comprises one or more acrylic ester copolymers, present up to 30 wt% of the formulation. The pressure sensitive adhesive is located on the entire surface of the front side of the backing or completely embedded in the backing.

Preferred Polymer: The polymer is preferably polyvinyl alcohol present in 1-20 wt %, sodium polyacrylate, present in 1- 20 wt% or gelatin present in 1-30 wt% of the formulation. The polymer and cosmetic formulation are located on the entire surface of the front side of the backing or

completely embedded in the backing.

Preferred Backing: The backing is porous, vapor permeable, comprises water (in)soluble material. The backing has a thickness of 0.025-1.25 mm, and comprises non woven fabric.

ORGANIC CHEMISTRY - Preferred Compounds: The solvent comprises water, triacetin, 1,3-propane diol, 2-methyl-1,3-propane diol, glycerol ricinoleate, PEG-6 caprylic/capric glycerides, caprylic/capric triglycerides, propyleneglycol dicaprylate/dicaprate, glycerol monostearate, glycerol monocaprylate, glycerol monolaurate, neopentyl alcohol, 1-hexadecanol, hydroxypropyl beta-cyclodextrin, vitamin E, vitamin E acetate, deoxycholic acid, taurodeoxycholic acid, 3-((3-cholamidopropyl)dimethylammonio)-1-propane-sulfonate, bigCHAP, cholic acid, **cholesterol** NF, propylene carbonate, **lecithin**, diethylene glycol ethyl ether, diethylene glycol ethyl ether acetate and/or their salts. The skin absorption enhancer is diethylene glycol monoethyl ether, **dimethyl sulfoxide** (DMSO), C10 DMSO, ionic surfactants, non-ionic surfactants, and/or isopropyl myristate.

The patch further comprises a preservative (0.01-1.5 wt% of the formulation) selected from e.g. sodium meta bisulfite, sodium bisulfite, quat-15, parabens, dichlorobenzyl alcohol, ethylene diamine tetraacetic acid, formaldehyde, gum benzoin, imidazolidinyl urea, phenyl-mercuric acetate, polyaminopropyl biguanide, propyl gallate, sorbic acid, cresol, chloroacetamide sodium benzoate, chloromethyl-methylisothiazolinone, chloromethyl-methylisothiazolon, chloromethyl-methylisothiazolinone benzalkonium chloride, an octylisothiazolinone benzimidazol compound, chloromethyl-methylisothiazolinone octylisothiazolinone, o-phenylphenol benzisothiazolinone, o-phenylphenol benzisothiazolinone, benzisothiazolinone, benzoic acid, edetic acid, phenolic acid, benzyl alcohol, phenol, phenoxyethanol, sodium propionate, thimerosol, and/or their salts.

The patch further comprises one or more skin conditioners/skin protectants (up to 2 wt% of the formulation), selected from e.g. alpha-hydroxy acid (up to 5 wt%), a glycosaminoglycan, grape seed oil, cranberry seed oil, green tea, white tea, methyl paraben, propylparaben, caffeine, xanthine, vitamin B-3, nicotinamide, licorice, calamine, aluminum hydroxide gel, cocoa butter, aloe or lanolin.

PHARMACEUTICALS - Preferred Materials: The cosmetic agent is an anti-oxidant that is a free radical scavenger consisting of lycopene, tumeric, green tea, white tea, alpha-hydroxy acid, beta-hydroxy acid, Vitamin C, Vitamin E, Vitamin A, their salts, or their derivatives. It is a collagen synthesis stimulator, fibroblast growth stimulator, and/or collagen cross-linking inhibitor. The collagen synthesis stimulator is a plant extract containing keratin, vitamin C, and/or copper containing peptide. The alpha-hydroxy acid is lactic acid, tartaric acid, citric acid, glycolic acid, malic acid, alpha-hydroxy octanoic acid, alpha-hydroxy caprylic acid, mixed fruit acid, sugar cane extract, or their salts. The beta-hydroxy acid is salicylic acid, beta-hydroxybutanoic acid, tropic acid, trethocanic acid, or their salts. The fibroblast growth stimulator is copper containing peptide, retin A, or cytokine (Fibroblast Growth Factor). The collagen cross-linking inhibitor is aminoguanidine or carnosine. The cosmetic agent is also tourmaline, caffeine, and/or theophyline. The pressure-sensitive adhesive has emulsifier that is pectin. The patch futher comprises a keratolytic agent, preferably alcloxa (up to 2 wt%, preferably 0.2-2 wt%) and/or resorcinol (up to 3 wt%, preferably 1-3 wt%). The cosmetic solution futher comprises a filler, preferably malto dextrin.

The patch further comprises an astringent (up to 25 wt% of the formulation), preferably alum, tannic acid, calamine, witch hazel and/or zinc oxide.

Preferred Components: The cosmetic formulation further comprises a fragrance, e.g. floral scent, fruit scent, plant leaf, seed, root, berry or bark scent (preferably e.g. grape fragrance, musk fragrance, light vanilla fragrance, Jergens lotion fragrance, Vaseline Intensive Care fragrance, Nivea Lotion fragrance, coffee fragrance, peanut butter fragrance, ginger bread house fragrance, and apple fragrance). Preferred Patch: The backing comprises nonwoven fabric. Upon contact with skin the backing retains the cosmetic formulation and the patch allows moisture from the skin to pass. The cosmetic agent is present in 0.01-4.0 (preferably 0.1-1.0) wt% of the cosmetic formulation. The cosmetic agent is located on the entire surface of the front side of the backing or embedded in the backing. The polyhydric alcohol is present up to 90 (preferably 20-60) wt% of the cosmetic formulation. The water is present 20-80 wt% of the cosmetic formulation. The solvent is present 5- 90 wt% of the formulation. The solvent is located either on the entire surface of the front side of the backing or completely embedded in the backing. The patch has a thickness of 0.2-0.75 mm and further comprises a release liner that is mounted to the front side of the backing. More than one, preferably 2-20 patches can be mounted on the release liner.

L122 ANSWER 34 OF 62 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-303966 [34] WPIX
DOC. NO. CPI: C2002-088369 [34]
DOC. NO. NON-CPI: N2002-237862 [34]
TITLE: Pharmaceutical carrier composition useful for **transdermal** delivery of a therapeutic agent comprises a **skin permeation** enhancing agent and a surface adhesion molecule-modulating agent
DERWENT CLASS: A96; B04; B07; P34
INVENTOR: GHOZI M; HERZBERG M; MESSIKA E
PATENT ASSIGNEE: (TRAN-N) TRANSDERMICS LTD
COUNTRY COUNT: 94

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2002011784	A2	20020214	(200234)*	EN	104[10]	A61M000-00
AU 2001080057	A	20020218	(200244)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002011784	A2	WO 2001-IL729	20010807
AU 2001080057	A	AU 2001-80057	20010807

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001080057	A	Based on	WO 2002011784 A

PRIORITY APPLN. INFO: US 2000-238474P 20001010
US 2000-223324P 20000807
INT. PATENT CLASSIF.:
MAIN: A61M000-00
BASIC ABSTRACT:
WO 2002011784 A2 UPAB: 20050525

NOVELTY - A pharmaceutical carrier composition for enhancing transdermal delivery of a therapeutic agent comprises (a) at least one **skin permeation** enhancing agent; and
(b) at least one surface adhesion molecule modulating agent.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:
(1) a pharmaceutical composition comprising at least one therapeutic agent and the carrier; (2) a device for **transdermal** application of at least one therapeutic agent including a solid support having the carrier or the composition on a skin-contacting side; and (3) **transdermal** delivery of at least one therapeutic agent involving either topically administering the therapeutic agent in the presence of the carrier or placing the device over a skin region. When the device comprising only carrier is used, the device is applied over that skin region to which the therapeutic agent has been previously applied.
USE - For **transdermal** delivery of a therapeutic agent e.g. drug, a nucleic acid construct, a vaccine, hormone, enzyme, antibody or cells (claimed).
ADVANTAGE - (a) and (b) act in synergy for enhancing the **transdermal** delivery of the therapeutic agent. The carrier enables efficient **transdermal** passage of large molecules through the skin into the blood stream of a treated subject; and increases vasopermeability in a mammal. MANUAL CODE: CPI: A12-V01; B04-B04D2; B04-C01; B04-C03C; B04-E01;
B04-F01; B04-G01; B04-J01; B04-L01; B05-B01P; B06-A02;
B10-A09A; B10-A10; B10-A13C; B10-A22; B10-B02J; B10-C04D;
B10-D03; B10-E04B; B10-E04C; B10-E04D; B10-F02; B10-G02;
B10-J02; **B12-M02F**; B12-M09; B14-L06; B14-S11

TECH
ORGANIC CHEMISTRY - Preferred Components: (a) is alcohol, fatty alcohol, fatty acid ester, alkyl ester, polyol, amide (preferably pyrrolidone derivative), surfactant (preferably polaxamer, span, tween, **bile salt** or **lecithin**), sulfoxide, terpene or alkanone and includes at least one biodegradable **skin permeation** enhancer (c). (c) is dodecyl-N,N-dimethylamino acetate or N,N-dimethylamino isopropionate.
PHARMACEUTICALS - Preferred Components: (b) is a cadherin antagonist, a selectin antagonist or an integerin antagonist. The cadherin antagonist is a peptide, which includes a His-Ala-Val amino acid sequence and is a cyclic peptide containing 4 - 15 amino acid residues. The cyclic peptide is of formula (Z1)-(Y1)-(X1)-His-Ala-Val-(X2)-(Y2)-(Z2) and comprises a sequence of formula Cys-His-Ala-Val-Cys, Cys-Ala-His-Ala-Val-Asp-Ile-Cys, Cys-Ser-His-Ala-Val-Cys, Cys-His-Ala-Val-Ser-Cys, Cys-Ala-His-Ala-Val-Asp-Cys, Cys-Ser-His-Ala-Val-Ser-Ser-Cys, Lys-His-Ala-Val-Asp or Ala-His-Ala-Val-Asp-Ile and further comprises an N-acetyl group or a C-terminal amide group. The therapeutic agent is a drug, a nucleic acid construct, a vaccine, hormone, enzyme, antibody or cells. The solid support is selected from a patch, a foil, a plaster or a film.
X1 and X2 = absent or amino acid residues, combinations of amino acid residues in which the residues are linked by peptide bonds;
Y1 and Y2 = amino acid residues (preferably penicillamine, beta,beta-tetramethylene cysteine, beta,beta-pentamethylene cysteine, beta-mercaptopropionic acid, beta,beta-pentamethylene-beta-mercaptopropionic acid, 2-mercaptobenzene, 2-mercaptoanilne, 2-mercaptoproline or derivatives of cystine residues containing side chain modifications or cyclic residues, derivatives of cysteine residues containing side chain modifications or tryptophan or its derivative containing side chain modifications;
Z1 and Z2 = absent or amino acid residues, combinations of amino acid residues in which the residues are linked by peptide.
provided that X1 and X2 have a size of 0 - 10 residues such that the sum of residues contained within X1 and X2 is 1 - 12; When Z1 is absent, Y1 comprises an N-acetyl group in the cyclic peptide and when Z2 is absent,

Y2 comprises a C-terminal amide group in the cyclic peptide group; Y1 and Y2 in the cyclic peptide are covalently linked via a disulfide bond, an amide bond or thioether bond. The amide bond is formed between either terminal functional groups, residue side-chains or between one terminal functional group and one residue side chain such that when Y1 is lysine, ornithine or their derivatives containing side chain modifications, then Y2 is aspartate, glutamate or their derivatives containing side chain modifications or vice versa; and when Y1 and Y2 is tryptophan or its derivative containing side chain modifications in the cyclic peptide the covalent bond generates a deltaldeltal-ditryptophan or its derivative containing side chain modifications.

L122 ANSWER 35 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 5

ACCESSION NUMBER: 2000:521475 BIOSIS Full-text
DOCUMENT NUMBER: PREV200000521475
TITLE: **Transdermal** delivery of levosimendan.
AUTHOR(S): Valjakka-Koskela, Riitta [Reprint author]; Hirvonen, Jouni; Monkkonen, Jukka; Kiesvaara, Juha; Antila, Saila; Lehtonen, Lasse; Urtti, Arto
CORPORATE SOURCE: Pharmaceutical Development Department, Orion Corporation Orion Pharma, 70701, Kuopio, Finland
SOURCE: European Journal of Pharmaceutical Sciences, (October, 2000) Vol. 11, No. 4, pp. 343-350. print.
ISSN: 0928-0987.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Nov 2000
Last Updated on STN: 11 Jan 2002

ABSTRACT:The aim of this study was to determine if **transdermal** penetration of levosimendan, a novel positive inotropic drug, could be enhanced and controlled by formulation modifications. Penetration of levosimendan across human epidermis in vitro was determined using abdominal excised skin and diffusion cells. Predicted steady-state plasma concentrations of levosimendan were estimated using permeabilities and pharmacokinetic parameters of levosimendan. For penetration enhancement we used different pH values, co-solvents, cyclodextrins, surfactants, penetration enhancers, liposomes, and iontophoresis. **Sodium lauryl sulfate**, ethanol, oleic acid, and soya **phosphatidylcholine** or their combinations clearly increased levosimendan **permeation** across the **skin** in vitro. Iontophoresis was also an efficient method to increase ***transdermal*** permeation of levosimendan. A hydrophilic co-solvent/penetration enhancer is needed to achieve better permeability of levosimendan across the skin. In conclusion, **transdermal** delivery of levosimendan can be significantly increased by formulation modification. Based on kinetic calculations, therapeutic plasma concentrations may be achievable ***transdermally.***

CONCEPT CODE: Pharmacology - General 22002
Biochemistry studies - General 10060
Pathology - Therapy 12512
Integumentary system - Physiology and biochemistry 18504
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Clinical pharmacology 22005
Pharmacology - Cardiovascular system 22010

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Integumentary

System (Chemical Coordination and Homeostasis)
Pharmacology
INDEX TERMS: Parts, Structures, & Systems of Organisms
epidermis: integumentary system
INDEX TERMS: Chemicals & Biochemicals
levosimendan: cardiovascular-drug, formulation, pharmacokinetics, **transdermal** delivery
ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
REGISTRY NUMBER: 141505-33-1 (levosimendan)

L122 ANSWER 36 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:396966 BIOSIS Full-text
DOCUMENT NUMBER: PREV200600393145
TITLE: Effect of preparation technique on the properties of liposomes encapsulating ketoprofen-cyclodextrin complexes aimed for **transdermal** delivery.
AUTHOR(S): Maestrelli, Francesca [Reprint Author]; Gonzalez-Rodriguez, Maria Luisa; Rabasco, Antonio Maria; Mura, Paola
CORPORATE SOURCE: Univ Florence, Fac Pharm, Dept Pharmaceut Sci, Via U Schiff 6, I-50019 Florence, Italy
francesca.maestrelli@unifi.it
SOURCE: International Journal of Pharmaceutics (Kidlington), (APR 7 2006) Vol. 312, No. 1-2, pp. 53-60.
CODEN: IJPHDE. ISSN: 0378-5173.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Aug 2006
Last Updated on STN: 9 Aug 2006
ABSTRACT:The combined approach of cyclodextrin complexation and entrapment in liposomes was investigated in order to develop an effective topical formulation of ketoprofen. Equimolar complex of drug and hydroxypropyl-beta-cyclodextrin (HPPCyd) was added at different concentrations to the aqueous phase of liposomes consisting of **phosphatidylcholine** and **cholesterol** (60%/40%, w/w). Liposomes were prepared with different techniques, such as thin layer evaporation, freezing and thawing, extrusion through microporous membrane, and reverse phase evaporation method, obtaining, respectively, multi-lamellar vesicles (MLV), frozen and thawed MLV (FATMLV), small uni-lamellar vesicles (SUV) and large uni-lamellar vesicles (LUV). Size and morphology of the different types of liposomes were investigated by light scattering analysis, transmission electron microscopy, and confocal laser scanning microscopy, whereas drug entrapment efficiency was determined by dialysis experiments. Cyclodextrin complexation improved drug solubilization and allowed a strong improvement of its entrapment into the aqueous liposomal phase. Liposome preparation method and operating conditions clearly affected both liposome size and drug loading capacity. Encapsulation efficiency increased with increasing the complex concentration up to 10 mM, and was in the order MLV > LUV > SUV. An opposite behaviour was observed for FATMLV, probably due to the freezing phase required by such a preparation method, which reduced the complex solubility. Moreover, it was not possible to use higher complex concentrations, due to the destabilizing effect of cyclodextrins toward the liposomal membrane. Permeability studies of drug-HP beta Cyd complexes,

directly in solution or incorporated in liposomes, performed across artificial membrane simulating the skin behaviour, highlighted, as expected, a prolonged release effect of liposomal formulations. Furthermore, the drug permeation rate depended on the vesicle characteristics and varied in the order: SUV > MLV = FATMLV > LUV. Therefore, the most suitable liposome preparation method can be suitably selected on the basis of drug encapsulation efficiency and/or desired drug release rate. (c) 2006 Elsevier B.V. All rights reserved.

CONCEPT CODE: Biochemistry studies - Lipids 10066
Biochemistry studies - Sterols and steroids 10067
Pathology - Therapy 12512
Integumentary system - Physiology and biochemistry 18504
Pharmacology - General 22002
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Immunological processes and allergy 22018

INDEX TERMS: Major Concepts
Pharmacology; Integumentary System (Chemical Coordination and Homeostasis)

INDEX TERMS: Chemicals & Biochemicals
cholesterol; **phosphatidylcholine**; hydroxypropyl-beta-cyclodextrin; liposome: drug delivery system; ketoprofen-cyclodextrin: antiinflammatory-drug, antiarthritic-drug, immunologic-drug, topical administration

INDEX TERMS: Methods & Equipment
transmission electron microscopy: laboratory techniques, imaging and microscopy techniques; confocal laser scanning microscopy: laboratory techniques, imaging and microscopy techniques; light scattering: laboratory techniques, spectrum analysis techniques

REGISTRY NUMBER: 57-88-5 (**cholesterol**)

L122 ANSWER 37 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:220742 BIOSIS Full-text
DOCUMENT NUMBER: PREV200510003609
TITLE: Proniosomes as a drug carrier for **transdermal** delivery of ketorolac.
AUTHOR(S): Alsarra, Ibrahim A. [Reprint Author]; Bosela, A. A.; Ahmed, S. M.; Mahrous, G. M.
CORPORATE SOURCE: King Saud Univ, Coll Pharm, Dept Pharmaceut, POB 2457, Riyadh 11451, Saudi Arabia
ialsarra@ksu.edu.sa
SOURCE: European Journal of Pharmaceutics and Biopharmaceutics, (APR 2005) Vol. 59, No. 3, pp. 485-490.
ISSN: 0939-6411.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Jun 2005
Last Updated on STN: 10 Jun 2005

ABSTRACT:Niosomes are nonionic surfactant vesicles that have potential applications in the delivery of hydrophobic and hydrophilic drugs. Permeation of a potent nonsteroidal anti-inflammatory, ketorolac, across excised rabbit skin from various promosome gel formulations was investigated using Franz diffusion cells. Each of the prepared proniosomes significantly improved drug permeation and reduced the lag time ($P < 0.05$). Proniosomes prepared with Span 60 provided a higher ketorolac flux across the skin than did those prepared with Tween 20 (7- and 4-fold the control, respectively). A change in the ***cholesterol*** content did not affect the efficiency of the proniosomes, and the reduction in the **lecithin** content did not significantly

decrease the flux (P > 0.05). The encapsulation efficiency and size of niosomal vesicles formed by promosome hydration were also characterized by specific high performance liquid chromatography method and scanning electron microscopy. Each of the prepared niosomes achieved about 99% drug encapsulation. Vesicle size was markedly dependent on the composition of the proniosomal formulations. Proniosomes may be a promising carrier for ketorolac and other drugs, especially due to their simple production and facile up. (c) 2004 Elsevier B.V. All rights reserved.

CONCEPT CODE: Biochemistry studies - Sterols and steroids 10067
Pathology - Therapy 12512
Integumentary system - Physiology and biochemistry 18504
Pharmacology - General 22002
Pharmacology - Clinical pharmacology 22005
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Immunological processes and allergy 22018

INDEX TERMS: Major Concepts
Pharmacology; Methods and Techniques

INDEX TERMS: Parts, Structures, & Systems of Organisms
skin: integumentary system

INDEX TERMS: Chemicals & Biochemicals
cholesterol; **lecithin**; Tween 20;
ketorolac: enzyme inhibitor-drug, immunologic-drug, antiinflammatory-drug, **transdermal** administration; proniosome: antiinflammatory-drug, immunologic-drug, efficacy, hydration

INDEX TERMS: Methods & Equipment
high performance liquid chromatography: laboratory techniques, chromatographic techniques; scanning electron microscopy: laboratory techniques, imaging and microscopy techniques

INDEX TERMS: Miscellaneous Descriptors
drug permeation; hydrophilic drug; hydrophobic drug; drug encapsulation

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrate

REGISTRY NUMBER: 57-88-5 (**cholesterol**)
9005-64-5 (Tween 20)
74103-06-3 (ketorolac)

L122 ANSWER 38 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:190411 BIOSIS Full-text
DOCUMENT NUMBER: PREV200500190411
TITLE: Liposomes as carriers for denual delivery of tretinoin: in vitro evaluation of drug penneation and vesicle-skin interaction.
AUTHOR(S): Sinico, Chiara; Manconi, Maria; Peppi, Marcello; Lai, Francesco; Valenti, Donatella; Fadda, Anna Maria [Reprint Author]
CORPORATE SOURCE: Dipartimento Farm Chim Tecnol, Univ Cagliari, Via Osped 72, I-09124, Cagliari, Italy
mfadda@unica.it

SOURCE: Journal of Controlled Release (March 2, 2005) Vol. 103, No. 1, pp. 123-136. print.
ISSN: 0168-3659 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 May 2005
Last Updated on STN: 18 May 2005

ABSTRACT:The influence of liposome composition, size, lamellarity and charge on the (trans)dermal delivery of tretinoin (TRA) was studied. For this purpose we studied both multilamellar (MLV) or unilamellar (UV) liposomes. Positively or negatively charged liposomes were obtained using either hydrogenated (Phospholipon(R)90H) or non-hydrogenated soy **phosphatidylcholine** (Phospholipon(R)90) and **cholesterol**, in combination with stearylamine or dicetylphosphate. Liposomal formulations were characterized by transmission electron microscopy (TEM) and optical and light polarized microscopy for vesicle formation and morphology, and by dynamic laser light scattering for size distribution. In order to obtain more information about the stability and the thermodynamic activity of the liposomal tretinoin, TRA diffusion through a lipophilic membrane was investigated. The effect of the vesicular incorporation of tretinoin on its accumulation into the newborn pig skin was also studied. The experiments were performed in vitro using Franz cells in occlusive conditions and were compared to three different controls. The tretinoin amount delivered through and accumulated in the several skin layers was detected by HPLC. Furthermore, TEM in combination with osmium tetroxide was used to visualize the skin structure after the liposomal administration. Overall obtained results showed that liposomes may be an interesting carrier for tretinoin in skin disease treatment, when appropriate formulations are used. In particular, negatively charged liposomes strongly improved newborn pig skin hydration and TRA retention, though no evidence of intact vesicle penetration was found.

CONCEPT CODE: Biochemistry studies - Sterols and steroids 10067
Pathology - Therapy 12512
Integumentary system - Physiology and biochemistry 18504
Pharmacology - General 22002
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Endocrine system 22016
Pharmacology - Integumentary system, dental and oral biology 22020
Neoplasms - Therapeutic agents and therapy 24008

INDEX TERMS: Major Concepts
Integumentary System (Chemical Coordination and Homeostasis); Pharmaceuticals (Pharmacology)

INDEX TERMS: Parts, Structures, & Systems of Organisms
skin: integumentary system

INDEX TERMS: Chemicals & Biochemicals
cholesterol; dicetylphosphate; liposomes: drug carrier, multilamellar, unilamellar; soy **phosphatidylcholine**; stearylamine; tretinoin: antineoplastic-drug, dermatological-drug, hormone-drug, pharmacokinetics, **transdermal** administration, pharmaceutical

INDEX TERMS: Miscellaneous Descriptors
drug permeation; vesicle-skin interaction

ORGANISM: Classifier
Suidae 85740
Super Taxa
Artiodactyla; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
pig (common): newborn

Taxa Notes
Animals, Artiodactyls, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates

REGISTRY NUMBER: 57-88-5 (cholesterol)
2197-63-9 (dicetylphosphate)
124-30-1 (stearylamine)
302-79-4 (tretinoin)

L122 ANSWER 39 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:28114 BIOSIS Full-text
DOCUMENT NUMBER: PREV200500028722
TITLE: Evaluation of in-vivo topical anti-inflammatory activity of indometacin from liposomal vesicles.
AUTHOR(S): Puglia, Carmelo [Reprint Author]; Trombetta, Domenico; Venuti, Vincenza; Saija, Antonella; Bonina, Francesco
CORPORATE SOURCE: Dept Pharmaceut SciSch Pharm, Univ Catania, Viale A Doria N6, I-95125, Catania, Italy
capuglia@unict.it
SOURCE: Journal of Pharmacy and Pharmacology, (October 2004) Vol. 56, No. 10, pp. 1225-1232. print.
CODEN: JPPMAB. ISSN: 0022-3573.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Jan 2005
Last Updated on STN: 5 Jan 2005

ABSTRACT:The aim of this study was to evaluate the in-vivo drug release profile of indometacin-loaded liposomes into the skin. Large unilamellar vesicles (LUVs), composed of dipalmitoyl-L-alpha-**phosphatidylcholine** and ***cholesterol*** (9:1), were obtained using the extrusion method and then incorporated in hydrogels (LUV-A and LUV-B). The delivery of indometacin from the liposomal system was evaluated by determining its in-vivo local anti-inflammatory activity after cutaneous application of liposomal gel formulations; the anti-inflammatory activity is directly proportional to the amount of drug that actually crosses the skin. UVB-induced erythema on healthy human volunteers was chosen as the inflammatory model and the extent of erythema was monitored by the non-invasive technique of reflectance spectrophotometry. The results showed that LUV dispersions containing indometacin provided a high percentage of entrapped drug (apprx84%). Furthermore, in-vivo findings revealed that the anti-inflammatory effect was more prolonged when indometacin was delivered from a liposomal gel formulation rather than from a gel formulation without liposomes. In particular, the indometacin-loaded gel formulation LUV-A showed a sustained effect, probably related to an interaction between LUV lipids and stratum corneum lipid structure. This interaction produces a depot in the stratum corneum that ensures sustained release of the drug to deeper skin layers.

CONCEPT CODE: Biochemistry studies - Sterols and steroids 10067
Pathology - Therapy 12512
Integumentary system - Physiology and biochemistry 18504
Integumentary system - Pathology 18506
Pharmacology - General 22002
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Clinical pharmacology 22005
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Immunological processes and allergy 22018
Immunology - Immunopathology, tissue immunology 34508

INDEX TERMS: Major Concepts
Clinical Immunology (Human Medicine, Medical Sciences);

Dermatology (Human Medicine, Medical Sciences); Pharmacology

INDEX TERMS: Parts, Structures, & Systems of Organisms
skin: integumentary system

INDEX TERMS: Diseases
erythema: integumentary system disease, drug therapy
Erythema (MeSH)

INDEX TERMS: Chemicals & Biochemicals
cholesterol; dipalmitoyl-L-alpha-**phosphatidylcholine**; indometacin: antiinflammatory-drug, immunologic-drug, pharmacokinetics, **transdermal** administration, clinical trial, pharmaceutical; liposome; unilamellar vesicles

INDEX TERMS: Methods & Equipment
drug delivery: clinical techniques, therapeutic and prophylactic techniques; extrusion method: laboratory techniques; reflectance spectrophotometry: laboratory techniques, spectrum analysis techniques

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 57-88-5 (**cholesterol**)
63-89-8 (dipalmitoyl-L-alpha-**phosphatidylcholine**)
53-86-1 (indometacin)

L122 ANSWER 40 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:69518 BIOSIS Full-text
DOCUMENT NUMBER: PREV200400070087
TITLE: Effect of **skin penetration** enhancers on the **transdermal** administration of phenazepam in vitro.
AUTHOR(S): Kravchenko, I. A.; Larionov, V. B.; Aleksandrova, A. I.; Ovcharenko, N. V.; Polishchuk, A. A.; Andronati, S. A.
SOURCE: Khimiko-Farmatsevticheskii Zhurnal, (July 2003) Vol. 37, No. 7, pp. 31-35. print.
CODEN: KHFZAN. ISSN: 0023-1134.
DOCUMENT TYPE: Article
LANGUAGE: Russian
ENTRY DATE: Entered STN: 4 Feb 2004
Last Updated on STN: 4 Feb 2004
CONCEPT CODE: Biochemistry studies - General 10060
Biochemistry studies - Lipids 10066
Biochemistry studies - Sterols and steroids 10067
Anatomy and Histology - Gross anatomy 11102
Pathology - Therapy 12512
Integumentary system - Physiology and biochemistry 18504
Pharmacology - General 22002
INDEX TERMS: Major Concepts
Integumentary System (Chemical Coordination and Homeostasis); Pharmacology
INDEX TERMS: Parts, Structures, & Systems of Organisms
horny layer: integumentary system; skin: integumentary

system.
INDEX TERMS: Chemicals & Biochemistry
DMSO [**dimethyl sulfoxide**]; acids; aliphatic alcohols; **cholesterol**; dodecanol; lauric acid; pentanol; phenazepam: in vitro administration; propylene glycol; **skin penetration** enhancers: drug vehicle, pharmaceutical
INDEX TERMS: Methods & Equipment
IR spectroscopy: laboratory techniques, spectrum analysis techniques; **transdermal** administration: clinical techniques, therapeutic and prophylactic techniques
INDEX TERMS: Miscellaneous Descriptors
hydration; morphology
ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat (common): animal model
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
REGISTRY NUMBER: **67-68-5** (DMSO)
67-68-5 (**dimethyl sulfoxide**)
57-88-5 (**cholesterol**)
112-53-8Q (dodecanol)
27342-88-7Q (dodecanol)
143-07-7 (lauric acid)
71-41-0Q (pentanol)
30899-19-5Q (pentanol)
51753-57-2 (phenazepam)
57-55-6 (propylene glycol)

L122 ANSWER 41 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:547808 BIOSIS Full-text
DOCUMENT NUMBER: PREV200200547808
TITLE: Liquid crystalline pharmacogel based enhanced **transdermal** delivery of propranolol hydrochloride.
AUTHOR(S): Namdeo, Alok; Jain, N. K. [Reprint author]
CORPORATE SOURCE: Novel Drug Delivery Research Laboratory, Department of Pharmaceutical Sciences, Dr. H.S. Gour University, Sagar, MP, 470 003, India
jnarendr@yahoo.co.in
SOURCE: Journal of Controlled Release, (21 August, 2002) Vol. 82, No. 2-3, pp. 223-236. print.
CODEN: JCREEC. ISSN: 0168-3659.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Oct 2002
Last Updated on STN: 23 Oct 2002
ABSTRACT:A novel pharmacogel was developed for the enhanced **transdermal** delivery of propranolol hydrochloride (PH). The synthesized prodrugs, propranolol palmitate hydrochloride (PPH) and propranolol stearate hydrochloride (PSH) self-assembled to form gel simply upon mixing alcoholic solution of prodrug with an aqueous solution in a specified ratio. By varying the ratio of prodrug, alcohol and water, three-component phase diagram was constructed which revealed isotropic-gel-vesicular dispersion regions,

respectively concomitant to increasing the ratio of water. The gel phase is termed 'Pharmacogel' and exhibits birefringence under plane-polarized light corroborating the presence of lamellar liquid crystals. The pharmacogel by virtue of high chemical potential gradient and improved physicochemical properties showed the enhanced in-vitro **skin permeation** flux of 51.5+-3.7 and 42.5+-3.1 mug/cm2/h from PPH and PSH gel, respectively, as compared to 1.9+-0.1 mug/cm2/h for control; and decrease in lag time (1.8 and 2.8 h for PPH and PSH gel, respectively) compared to control (7.6 h) was observed. The admixing of egg **lecithin** (EL) in increasing ratio concomitantly decreased the flux values to 31.7+-2.1 mug/cm2/h (at a mole ratio of 50:50 PPH:EL) and increased the lag time. In the gel containing 50% EL, the addition of span 40 and **cholesterol** slightly reduced the permeation while sodium deoxycholate and Tween-80 improved it. The plasma drug levels following **transdermal** application of control were low (Cmax=23 ng/ml) while in PPH gel, it increased with time reaching Cmax of 94 ng/ml at 8 h post-application of PPH gel (Cmax of 75 ng/ml at 12 h post application of PL5 gel) and maintained for longer times. The AUC0-32 h for PPH gel was much higher (1968 ng h/ml) than control (AUC0-18 h was 239 ng h/ml), while EL mixed gel also showed better absorption (AUC0-32 h was 1707 ng h/ml). The gel formulations also caused less irritation than control, while mixed gel showed least irritation. This novel self-assembled pharmacogel providing high ***transdermal*** permeation with many variables to regulate the delivery is therefore having a great potential in percutaneous delivery.

CONCEPT CODE: Biochemistry studies - General 10060
Biochemistry studies - Sterols and steroids 10067
Pathology - Therapy 12512
Blood - Blood and lymph studies 15002
Blood - Blood cell studies 15004
Integumentary system - Physiology and biochemistry 18504
Pharmacology - General 22002
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Neuropharmacology 22024

INDEX TERMS: Major Concepts
Equipment, Apparatus, Devices and Instrumentation; Pharmacology

INDEX TERMS: Parts, Structures, & Systems of Organisms
plasma: blood and lymphatics; skin: integumentary system

INDEX TERMS: Chemicals & Biochemicals
alcohol; **cholesterol**; egg **lecithin**; propranolol hydrochloride: adrenergic antagonist-drug, autonomic-drug, beta-adrenergic antagonist-drug, pharmacokinetics, **transdermal** administration; propranolol palmitate hydrochloride: prodrug; propranolol stearate hydrochloride: prodrug; sodium deoxycholate; water

INDEX TERMS: Methods & Equipment
liquid crystalline pharmacogel: chemical potential gradient, drug delivery device, efficacy, physicochemical properties

INDEX TERMS: Miscellaneous Descriptors
medicinal chemistry

REGISTRY NUMBER: 64-17-5 (alcohol)
57-88-5 (**cholesterol**)
318-98-9 (propranolol hydrochloride)
302-95-4 (sodium deoxycholate)
7732-18-5 (water)

L122 ANSWER 42 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1996:385047 BIOSIS Full-text
DOCUMENT NUMBER: PREV199699107403
TITLE: Percutaneous absorption of biologically-active interferon-gamma in a human skin graft-nude mouse model.
AUTHOR(S): Short, Sarah M.; Paasch, Brian D.; Turner, Jason H.; Weiner, Norman; Daugherty, Ann L.; Mrsny, Randall J. [Reprint author]
CORPORATE SOURCE: Pharm. Res. Dev., Genentech Inc., 460 Pt. San Bruno Blvd., South San Francisco, CA 94080-4990, USA
SOURCE: Pharmaceutical Research (New York), (1996) Vol. 13, No. 7, pp. 1020-1027.
CODEN: PHREEB. ISSN: 0724-8741.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Aug 1996
Last Updated on STN: 26 Aug 1996

ABSTRACT:Purpose: Topical delivery has been suggested to reduce systemic side effects while targeting cytokines for the treatment of certain skin conditions. Liposomes have been proposed as an enhancing agent for such a delivery. We have tested the potential of liposomes to augment the uptake of biologically active recombinant human interferon-gamma (rhIFN-gamma) into human skin lacking adnexa in an in vivo model. Methods: Stable grafts of human skin on nude mice were used to test aqueous formulations of rhIFN-gamma containing or lacking liposomes composed of **phosphatidylcholine** and **cholesterol.**
Transport of rhIFN-gamma was assessed by monitoring the stimulated expression of intercellular adhesion molecule-1 (ICAM-1) by keratinocytes by light-level immunomicroscopy and ELISA. Results: A single application of liposomal rhIFN-gamma increased ICAM-1 levels in the epidermal basal and suprabasal cell layers of grafts. Continued application maintained this response. An aqueous formulation of rhIFN-gamma or liposomes alone applied to grafts failed to induce an ICAM-1 response. Preliminary studies suggested that at least some of the lipids applied in the liposomal formulation also entered the epidermis. Conclusions: Using a nude mouse-human skin graft model lacking adnexa, we have demonstrated that a liposomal formulation can augment the uptake of a biologically-active human cytokine, rhIFN-gamma, into the epidermis of viable human skin. The therapeutic application of topical IFN-gamma delivery remains to be evaluated.

CONCEPT CODE:
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Lipids 10066
Biophysics - Methods and techniques 10504
Integumentary system - Physiology and biochemistry 18504
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Endocrine system 22016
Pharmacology - Immunological processes and allergy 22018
Routes of immunization, infection and therapy 22100
Neoplasms - Therapeutic agents and therapy 24008
Chemotherapy - Antiviral agents 38506

INDEX TERMS: Major Concepts
Integumentary System (Chemical Coordination and Homeostasis); Methods and Techniques; Oncology (Human Medicine, Medical Sciences); Pharmacology

INDEX TERMS: Miscellaneous Descriptors
ANTINEOPLASTIC-DRUG; ANTIVIRAL-DRUG; HORMONE-DRUG; IMMUNOLOGIC-DRUG; INTERFERON-GAMMA; LIPOSOMES; PHARMACEUTICAL FORMULATION; **TRANSDERMAL** DRUG DELIVERY

ORGANISM: Classifier
Hominidae 86215

Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Hominidae
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGANISM: Classifier
Mammalia 85700
Super Taxa
Vertebrata; Chordata; Animalia
Organism Name
mammal
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Muridae
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

L122 ANSWER 43 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:7905 BIOSIS Full-text
DOCUMENT NUMBER: PREV199799307108
TITLE: Epidermal and **dermal penetration** of anionic and zwitterionic liposomally encapsulated antisense oligonucleotide into hairless mouse skin.
AUTHOR(S): Ocheltree, T. W. [Reprint author]; Mehta, R. C.; Michniak, B. B.; Shah, Jaymin C. [Reprint author]
CORPORATE SOURCE: Med. Univ. South Carolina, Dep. Pharm. Sci., Charleston, SC 29425, USA
SOURCE: Pharmaceutical Research (New York), (1996) Vol. 13, No. 9 SUPPL., pp. S384.
Meeting Info.: Annual Meeting of the American Association of Pharmaceutical Scientists. Seattle, Washington, USA. October 27-31, 1996.
CODEN: PHREEB. ISSN: 0724-8741.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Jan 1997
Last Updated on STN: 11 Feb 1997
CONCEPT CODE: Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Integumentary system - General and methods 18501
Integumentary system - Physiology and biochemistry 18504
Pharmacology - General 22002
INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Integumentary System (Chemical Coordination and Homeostasis); Pharmacology
INDEX TERMS: Chemicals & Biochemicals
CHOLESTEROL; DIPALMITOYLPHOSPHATIDYLCHOLINE; DIMYRISTOYLPHOSPHATIDYLCHOLINE

INDEX TERMS: Miscellaneous Descriptors:
ANTISENSE OLIGONUCLEOTIDE; BIOBUSINESS; CARDIOLIPIN; **PHOSPHATIDYLCHOLINE/CHOLESTEROL** ANIONIC LIPOSOMAL FORMULATION; **DERMAL PENETRATION**; DERMIS; DIPALMITOYLPHOSPHATIDYLCHOLINE/DIMYRISTOYLPHOSPHATIDYLCHOLINE/**CHOLESTEROL** ZWITTERIONIC LIPOSOMAL FORMULATION; DIPALMITOYLPHOSPHATIDYLCHOLINE/DIMYRISTOYLPHOSPHATIDYLGLYCOL/**CHOLESTEROL** ANIONIC LIPOSOMAL FORMULATION; DRUG DELIVERY; ENCAPSULATION EFFICIENCY; EPIDERMAL PENETRATION; EPIDERMIS; HAIRLESS MOUSE; INTACT; INTEGUMENTARY SYSTEM; ISIS-2302; PHARMACOLOGY; SKIN

ORGANISM: Classifier
Mammalia 85700
Super Taxa
Vertebrata; Chordata; Animalia
Organism Name
mammal
Mammalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Muridae
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 57-88-5 (**CHOLESTEROL**)
63-89-8Q (DIPALMITOYLPHOSPHATIDYLCHOLINE)
2644-64-6Q (DIPALMITOYLPHOSPHATIDYLCHOLINE)
18194-24-6Q (DIMYRISTOYLPHOSPHATIDYLCHOLINE)
18656-38-7Q (DIMYRISTOYLPHOSPHATIDYLCHOLINE)
13699-48-4Q (DIMYRISTOYLPHOSPHATIDYLCHOLINE)

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ACCESSION NUMBER: 1996:475182 BIOSIS Full-text
DOCUMENT NUMBER: PREV199699204738
TITLE: Characterization of complex coacervates of some tricyclic antidepressants and evaluation of their potential for enhancing **transdermal** flux.
AUTHOR(S): Stott, Paul W.; Williams, Adrian C.; Barry, Brian W. [Reprint author]
CORPORATE SOURCE: Postgraduate Studies Pharm. Technol., The Sch. Pharm., Univ. Bradford, Bradford BD7 1DP, UK
SOURCE: Journal of Controlled Release, (1996) Vol. 41, No. 3, pp. 215-227.
CODEN: JCREEC. ISSN: 0168-3659.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Oct 1996
Last Updated on STN: 24 Oct 1996

ABSTRACT:Complex coacervation is the separation of an aqueous mixture of oppositely charged ions into a dense coacervate oil phase, rich in ionic complex, and a dilute equilibrium phase. Coacervation was investigated between

cationic tricyclic antidepressants (amitriptyline, imipramine and doxepin) and counter-ions of anionic bile salts sodium cholate (NaC) and sodium deoxycholate (NaD), and the surfactant **sodium lauryl** ***sulfate*** (SLS). Systems were analyzed by microscopy, HPLC, Karl Fischer titration, thermogravimetric analysis and particle size analysis. Two systems were selected to investigate the potential of this formulation for enhancing ***transdermal*** flux of charged species - amitriptyline (AMI) with NaD, which separates into two distinct phases, and AMI with SLS which remains as a sol. Octanol/vehicle partition coefficients were determined and the AMI:NaD coacervate produced an 18-fold increase and AMI:SLS 22-fold compared with aqueous solution. Permeation experiments were performed using human epidermal membrane with an aqueous receptor and the flux from a 0.025 M aqueous solution which is above the critical micelle concentration (0.015 M) was 3.0 +- 0.54 mu-g/cm-2/h (S.E.M., n = 10). The flux from an AMI:NaD coacervate donor was 6.6 +- 0.71 mu-g/cm-2/h (S.E.M., n = 8), which represents a significant 2.2-fold increase (t-test, P = 0.01). The AMI:SLS system, however, reduced the flux compared with the aqueous solution. Permeation studies were repeated using silastic membrane to exclude simple enhancing effects of the counterions and similar differences in flux were obtained indicating that the changes were due to the formulation. The results indicate that the increased lipophilicity of the coacervate oil phase can increase the **transdermal** flux of charged species.

CONCEPT CODE:
Biochemistry studies - General 10060
Integumentary system - General and methods 18501
Pharmacology - General 22002

INDEX TERMS:
Major Concepts
Biochemistry and Molecular Biophysics; Integumentary System (Chemical Coordination and Homeostasis); Pharmacology

INDEX TERMS:
Chemicals & Biochemicals
AMITRIPTYLINE; IMIPRAMINE; DOXEPIN; SODIUM CHOLATE; SODIUM DEOXYCHOLATE; **SODIUM LAURYL SULFATE**

INDEX TERMS:
Miscellaneous Descriptors
AMITRIPTYLINE; ANIONIC **BILE SALT**; BIOBUSINESS; CATIONIC COMPOUND; COACERVATE OIL PHASE; COMPLEX COACERVATION; DOXEPIN; DRUG PERMEATION; EPIDERMIS; IMIPRAMINE; LIPOPHILICITY; PHARMACEUTICALS; SEPARATION METHOD; SODIUM CHOLATE; SODIUM DEOXYCHOLATE; **SODIUM LAURYL SULFATE**; SURFACTANT; TRICYCLIC ANTIDEPRESSANT

ORGANISM:
Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER:
50-48-6 (AMITRIPTYLINE)
50-49-7 (IMIPRAMINE)
1668-19-5 (DOXEPIN)
361-09-1 (SODIUM CHOLATE)
302-95-4 (SODIUM DEOXYCHOLATE)
151-21-3 (**SODIUM LAURYL SULFATE**)

L122 ANSWER 45 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1995:257347 BIOSIS Full-text
DOCUMENT NUMBER: PREV199598271647
TITLE: Effects of phospholipid based formulations on in vitro and in vivo percutaneous absorption of methyl nicotinate.
AUTHOR(S): Bonina, F. P.; Montenegro, L.; Scrofani, N.; Esposito, E.; Cortesi, R.; Menegatti, E.; Nastruzzi, C. [Reprint author]
CORPORATE SOURCE: Dipartimento Scienze Farmaceutiche, Univ. Ferrara, Via Fossato Mortara 19, 44100 Ferrara, Italy
SOURCE: Journal of Controlled Release, (1995) Vol. 34, No. 1, pp. 53-63.
CODEN: JCREEC. ISSN: 0168-3659.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jun 1995
Last Updated on STN: 13 Jun 1995

ABSTRACT:In this paper we evaluate the influence of phospholipid based formulations (PBFs) on skin absorption. In particular we describe the production and characterization of different PBFs, namely liposomes and w/o microemulsion gels, and their influence on in vitro and in vivo absorption of methyl nicotinate (MN) used as model compound. In order to compare the influence of various vehicles on skin absorption, Franz cell and MN induced erythema were used as in vitro and in vivo experimental models respectively. The formulations tested were: (a) unilamellar liposomes consisting of soybean ***lecithin*** / **cholesterol** (9:1 w/w) suspended in water or incorporated into hydrophilic gels (Carbomer and carboxymethyl cellulose based gets) and (b) soybean **lecithin** based gels. The results indicate that vehicles containing phospholipids in liposomal form provided enhanced in vivo MN **skin permeation** compared to the corresponding vehicles without phospholipids. **Lecithin** gel showed a different behaviour characterized by a short and intense persistence of MN induced erythema.

CONCEPT CODE:
Biochemistry studies - General 10060
Biochemistry studies - Lipids 10066
Biophysics - Molecular properties and macromolecules 10506
Biophysics - Membrane phenomena 10508
Pathology - Inflammation and inflammatory disease 12508
Integumentary system - General and methods 18501
Integumentary system - Pathology 18506
Pharmacology - General 22002
Pharmacology - Clinical pharmacology 22005
Routes of immunization, infection and therapy 22100
In vitro cellular and subcellular studies 32600

INDEX TERMS:
Major Concepts
Dermatology (Human Medicine, Medical Sciences); Integumentary System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Pathology; Pharmacology

INDEX TERMS:
Chemicals & Biochemicals
METHYL NICOTINATE

INDEX TERMS:
Miscellaneous Descriptors
DRUG DELIVERY SYSTEM; ENHANCER MOLECULES; ERYTHEMA; **LECITHIN**; MICROEMULSION; PHARMACEUTICALS

ORGANISM:
Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates,

Vertebrates
REGISTRY NUMBER: 93-60- (METHYL NICOTINATE)

L122 ANSWER 46 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 1994:132353 BIOSIS Full-text
DOCUMENT NUMBER: PREV199497145353
TITLE: The measurement of liposome entrapped molecules' **penetration** into the **skin**: A 1D-EPR and EPR kinetic imaging study.
AUTHOR(S): Gabrijelcic, V. [Reprint author]; Sentjurc, M.; Schara, M.
CORPORATE SOURCE: Jozef Stefan Inst., Univ. Ljubljana, Ljubljana, Slovenia
SOURCE: International Journal of Pharmaceutics (Amsterdam), (1994) Vol. 102, No. 1-3, pp. 151-158.
CODEN: IJPHDE. ISSN: 0378-5173.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Mar 1994
Last Updated on STN: 24 Mar 1994

ABSTRACT:One-dimensional electron paramagnetic resonance imaging (1D-EPRI) and EPR reduction kinetics were used to follow continuously the transport of liposome entrapped substances into the skin. Through ID-EPRI the concentration distribution of the paramagnetic probe, which was applied to the skin entrapped in liposomes, could be followed, while through EPR reduction kinetics the chemical transformation of the paramagnetic probe, after it had been released from the liposomes, to an EPR-invisible form could be measured. Through the combination of both methods, and with the application of a model, in which the heterogeneity of different skin layers and the metabolism of the released substance was taken into account, liposome decay in the skin, as well as the time evolution of concentration distribution profiles for ASL in skin, was followed separately for both the entrapped substance and that released from liposomes. MLV (multilamellar vesicles) and REV (reverse-phase evaporation vesicles) obtained from egg **lecithin** and **cholesterol** (7:3 mol/mol) with the entrapped spin probe ASL (N-(1-oxyl-2,2,6,6-tetramethyl-4-piperidinyl)-N-dimethyl-N-hydroxyethylammonium iodide), which does not penetrate the liposome membrane easily, were applied to pig ear skin and the results were compared with those obtained for ASL dissolved in water and applied to the skin. The rapid decay of liposomes in the stratum corneum was measured, being much faster for MLV than for REV. In addition, a Tate of transport 100-times faster was observed for ASL applied to the skin in REV than that observed for ASL applied in MLV or in solution. Our observations show that the rapid decay of liposomes takes place in the stratum corneum, however, some of the ASL molecules remain protected from the reducing agents in the skin, which indicates that some REV liposomes can **penetrate** deeper into the **skin**, or at least their lipids protect the entrapped substance from metabolic transformation.

CONCEPT CODE:
Radiation biology - Radiation and isotope techniques 06504
Biochemistry studies - General 10060
Biochemistry studies - Lipids 10066
Biophysics - Methods and techniques 10504
Pathology - Therapy 12512
Metabolism - General metabolism and metabolic pathways 13002
Integumentary system - General and methods 18501
Integumentary system - Physiology and biochemistry 18504
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Clinical pharmacology 22005
Routes of immunization, infection and therapy 22100

INDEX TERMS: Major Concepts
Integumentary System (Chemical Coordination and Homeostasis); Metabolism; Methods and Techniques; Pharmacology; Radiology (Medical Sciences)

INDEX TERMS: Miscellaneous Descriptors
ANALYTICAL METHOD; ELECTRON PARAMAGNETIC RESONANCE IMAGING; METABOLIC TRANSFORMATION; PHARMACOKINETICS; TOPICAL APPLICATION

ORGANISM: Classifier
Suidae 85740

Super Taxa
Artiodactyla; Mammalia; Vertebrata; Chordata; Animalia

Organism Name
pig

Taxa Notes
Animals, Artiodactyls, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Vertebrates

L122 ANSWER 47 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1988:202770 BIOSIS Full-text
DOCUMENT NUMBER: PREV198885104116; BA85:104116
TITLE: CONTROLLED DRUG RELEASE FROM A NOVEL LIPOSOMAL DELIVERY SYSTEM I. INVESTIGATION OF **TRANSDERMAL** POTENTIAL.
AUTHOR(S): KNEPP V M [Reprint author]; HINZ R S; SZOKA F C JR; GUY R H
CORPORATE SOURCE: DEP PHARM, UNIV CALIFORNIA SAN FRANCISCO, SAN FRANCISCO, CALIF 94143, USA
SOURCE: Journal of Controlled Release, (1988) Vol. 5, No. 3, pp. 211-222.
CODEN: JCREEC. ISSN: 0168-3659.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 21 Apr 1988
Last Updated on STN: 21 Apr 1988

ABSTRACT:The in vitro release behavior of a novel liposome-based drug delivery device has been characterized. The system consists of a molded agarose matrix in which the model drug (progesterone) was dispersed either free or associated with one of four lipid formulations: egg-**phosphatidylcholine** (EPC) liposomes, EPC/**cholesterol** (2:1) liposomes, Intralipid emulsion, and dipalmitoylphosphatidylcholine (DPPC) liposomes. Drug release rates from the devices into aqueous buffer were measured at 37° C. The free progesterone release rate decreased rapidly over 24 h with over 90% delivered. The liposomal patches, on the other hand, imposed apparent zero-order kinetics: for example, both the EPC and DPPC systems delivered their progesterone payloads at about 1%/h over 24 h. Further, the EPC and DPPC patches significantly slowed **transdermal** drug delivery across excised hairless mouse skin. The EPC device retarded throughput to one-half the control value, the DPPC system reduced the transport kinetics by an order of magnitude. The results support two hypotheses: (a) the liposomal-based reservoir system can modulate drug input via the skin, (b) the zero-order release of progesterone from liposomes is determined by slow interfacial transport out of the bilayer into the surrounding aqueous medium.

CONCEPT CODE: Biochemistry studies - Lipids 10066
Biochemistry studies - Sterols and steroids 10067
Metabolism - Sterols and steroids 13008
Endocrine - Gonads and placenta 17006
Integumentary system - General and methods 18501
Pharmacology - General 22002
Pharmacology - Drug metabolism and metabolic stimulators

22003
Pharmacology - Endocrine system 22016
Routes of immunization, infection and therapy 22100
In vitro cellular and subcellular studies 32600

INDEX TERMS: Major Concepts
Endocrine System (Chemical Coordination and Homeostasis); Integumentary System (Chemical Coordination and Homeostasis); Pharmacology

INDEX TERMS: Miscellaneous Descriptors
MOUSE PROGESTERONE HORMONE-DRUG DRUG DELIVERY PHARMACOKINETICS

ORGANISM: Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 57-83-0 (PROGESTERONE)

L122 ANSWER 48 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1985:61396 BIOSIS Full-text
DOCUMENT NUMBER: PREV198528061396; BR28:61396
TITLE: LIPOSOMES AS DRUG-CARRIERS IN **TRANSDERMAL** THERAPY.
AUTHOR(S): KROWCZYNSKI L [Reprint author]; STOZEK T
CORPORATE SOURCE: KRUPNICZA 16, PL-31-123 KRAKOW VR, POL
SOURCE: Die Pharmazie, (1984) Vol. 39, No. 9, pp. 627-629.
Meeting Info.: DERMATOLOGICAL SCIENTIFIC CONVENTION, ERFURT, EAST GERMANY, MAR. 6-7, 1984. PHARMAZIE.
CODEN: PHARAT. ISSN: 0031-7144.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: GERMAN
CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520
Clinical biochemistry - General methods and applications 10006
Biochemistry methods - Sterols and steroids 10057
Biochemistry studies - Sterols and steroids 10067
Pathology - Inflammation and inflammatory disease 12508
Pathology - Therapy 12512
Metabolism - Sterols and steroids 13008
Blood - Blood and lymph studies 15002
Endocrine - Adrenals 17004
Integumentary system - Physiology and biochemistry 18504
Pharmacology - General 22002
Pharmacology - Drug metabolism and metabolic stimulators 22003
Pharmacology - Clinical pharmacology 22005
Pharmacology - Connective tissue, bone and collagen-acting drugs 22012
Pharmacology - Endocrine system 22016
Pharmacology - Integumentary system, dental and oral biology 22020

INDEX TERMS: Major Concepts
Biochemistry and Molecular Biophysics; Clinical Chemistry (Allied Medical Sciences); Endocrine System (Chemical Coordination and Homeostasis); Integumentary

System (Chemical Coordination and Homeostasis); Metabolism; Pathology; Pharmacology

INDEX TERMS: Miscellaneous Descriptors
HUMAN EGG **LECITHIN CHOLESTEROL**
PHARMACEUTICAL ADJUNCT-DRUG TRIAMCINOLONE
ANTIINFLAMMATORY-DRUG HORMONE-DRUG DERMATOLOGICAL-DRUG
DRUG DELIVERY SYSTEM PHARMACOKINETICS

ORGANISM: Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

REGISTRY NUMBER: 57-88-5 (**CHOLESTEROL**)
124-94-7 (TRIAMCINOLONE)

L122 ANSWER 49 OF 62 KOSMET COPYRIGHT 2007 IFSCC on STN
ACCESSION NUMBER: 30941 KOSMET Full-text
FILE SEGMENT: scientific, technical
TITLE: **TRANSDERMAL** DELIVERY COSMETIC SYSTEM: NEW STUDIES TO IMPROVE A CONTROLLED DELIVERY
AUTHOR: TIBERI L (MAVI SUD S.R.L., R & D, VIALE D'ELL INDUSTRIA 1, 04011 APRILIA (LT), ITALY, EMAIL: info@iscd.it); FIONDA A; MORGANTI P
SOURCE: 5 TH ASIAN DERMATOLOGICAL CONGRESS, "ORIENTAL MEDICINE TOWARD THE WORLD", BEIJING, CHINA, 14-17 OCTOBER 1998, 1 ST ISCD WORKSHOP ON COSMETIC DERMATOLOGY, "HAIR LOSS AND SKIN AGING", BEIJING, CHINA, 17 OCTOBER 1998, PROCEEDINGS, IN JOURNAL OF APPLIED COSMETOLOGY, 1998, 16, 3 (JULY-SEPTEMBER), POSTER 15, 110, ABSTRACT ONLY
Meeting Organizer: THE SECRETARIAT OF THE 5 TH ADC: CHINESE MEDICAL ASSOCIATION, 42 DONGSI XIDAJIE, BEIJING 1007 10, CHINA, TEL: +86-10-6525 0394 / 6527 8804, FAX: +86-10-6512 3754 / 6525 0394; INTERNATIONAL SOCIETY OF COSMETIC DERMATOLOGY (ISCD), VIA INNOCENZO XI, 41, 00165 ROMA, ITALY, SECRETARY GENERAL: P. MORGANTI, ITALY, FAX: +39-06-92 81 523, EMAIL: info@iscd.it , INTERNET: www.iscd.it
Availability: JOURNAL OF APPLIED COSMETOLOGY, OFFICIAL JOURNAL OF THE INTERNATIONAL SOCIETY OF COSMETIC DERMATOLOGY (ISCD), ISSN 0392-8543, EDITOR IN CHIEF: P. MORGANTI, ITALY, ASSOCIATE EDITORS: F.H. KEMPER, GERMANY, C. JACOBSEN, USA, M.B. JAMES, USA, EDITING ASSISTANT: M.L. NUNZIATA, ITALY, SUBSCRIPTION INFORMATION: INTERNATIONAL EDIEMME, VIA INNOCENZO XI, 41, 00165 ROMA, ITALY, FAX: +39-06-92 81 523, EMAIL: info@iscd.it , INTERNET: www.iscd.it
DOCUMENT TYPE: (POSTER)
LANGUAGE: English
ABSTRACT: **Transdermal** Delivery Cosmetic System (TDCS) is a new controlled delivery system, which was developed recently for use in the cosmetic field. As is known the available **transdermal** drug systems are result of sophisticated procedures, where technology prevails over a well-know pharmacological component. This account for the technological development of the **transdermal** system over such a short time. Such development progressed through three generations aimed at improving delivery and absorption, at reducing the patch sine and at making it

easier to use. The latest patch generation such as TDCS has the same polymeric matrix which controls both delivery, and adhesiveness. In addition it contain a special vehicle which enhances the absorption of the active components used by carrying them into the deepest cutaneous layers. In this study was evaluated the possibility to modify our vehicle by using a special kind of soybean **phosphatidylcholine** and/or montmorillonite, in order to obtain a more controlled delivery and absorption through the skin of antioxidants (vitamin C, vitamin E and polyphenols) or immuno-stimulant compounds (Betaglucan, alpha-bisabolol) useful as anti-aging or to protect the skin from UV damage. Different kinds of vehicle have been chemically characterized for bioavailability and absorption properties. The protective and immune suppression activity induced by UV exposure was also controlled "in vivo" by 3C System. Finally in healthy volunteers an erythema was set with **Sodium- lauryl sulfate** and skin redness and TEWL was measured. The montmorillonite and soybean phosphatidilcholine have demonstrated to be very useful to better control the delivery of selected clinical compounds by improving also the antioxidant and immuno-stimulant properties. What is important to highlight is the role developed by the different kinds of vehicles to improve the skin barrier function. This TDCS technology seems to open new and exciting cosmetic means capable of treating the UV-stressed and aged skin.

SUBJECT HEADING: SKIN
CONTROLLED TERM: MONTMORILLONITE; CLAYS; PHOSPHATIDYL CHOLINE; SOYBEAN OIL DERIVATIVES; DRUG DELIVERY; VEHICLES; RESEARCH AND DEVELOPMENT; ITALY; CONFERENCES; CHINA

L122 ANSWER 50 OF 62 KOSMET COPYRIGHT 2007 IFSCC on STN
ACCESSION NUMBER: 28627 KOSMET Full-text
FILE SEGMENT: scientific, technical
TITLE: THE STUDY ON STABILIZATION OF RETINOL-NANOEMULSION USING SKIN LIPID MATRIX (SLM)
AUTHOR: CHO JH (CHO JH (1), LIM CB (2), CHAI HG (2), EOM SY (2), KIM JH (2), JI HG (2)=CHARMZONE CO., LTD., KOREA, EMAIL: cho1145@bcline.com (1), H & A PHARMA CHEM, KOREA (2)); LIM CB; CHAI HG; EOM SY; KIM JH; JI HG
SOURCE: IFSCC CONFERENCE 2003, SEOUL, KOREA, SEPTEMBER 22-24, 2003, COEX CONVENTION CENTRE, SEOUL, CONFERENCE THEME: COSMETICS - WHERE SCIENCE MEETS DREAM, PROCEEDINGS BOOK 1 OF 2, PAPER 5, 61-72, 18 REFS
Meeting Organizer: SOCIETY OF COSMETIC SCIENTISTS OF KOREA (SCSK), 314-1, BORA-RI, KIHEUNG-EUP, YONGIN-SI KYUNGGI-DO 449-729, KOREA, TEL: +82-31-280 57 01, FAX: +82-31-285 03 24, EMAIL: Changkim@pacific.co.kr , INTERNET: www.scsk.or.kr ; IFSCC / SOCIETY OF COSMETIC SCIENTISTS, GT HOUSE, 24-26 ROTHESAY ROAD, LUTON, BEDS LU1 1QX, UNITED KINGDOM, TEL: +44-1582-726661, FAX: +44-1582-405217, EMAIL: ifscc.scs@btinternet.com
Availability: SOCIETY OF COSMETIC SCIENTISTS OF KOREA (SCSK), 314-1, BORA-RI, KIHEUNG-EUP, YONGIN-SI KYUNGGI-DO 449-729, KOREA, TEL: +82-31-280 57 01, FAX: +82-31-285 03 24, EMAIL: Changkim@pacific.co.kr , INTERNET: www.scsk.or.kr
DOCUMENT TYPE: Conference

LANGUAGE: English

ABSTRACT: In cosmetic area, retinol is prominent ingredient for anti-wrinkle but unstable against light, heat, oxygen and so on. Therefore the stabilization of retinol is required. Here, we capsulated doubly retinol in the SLM(Skin Lipid Matrix) that makes three dimensional lamellar structure similar to skin, after formation of primary liposome (retinol-nanoemulsion). First, we make primary liposome from retinol / hydrogenated **lecithin** / polysorbate20 / caprylic & capric triglyceride / ethanol / and so on, and the mean diameter to 70 nm, using microfluidizer passed three times at 800 Bar, repeatedly. Then we produce DC-liposome (doubly capsulated-liposome) that was encapsulated primary liposome with SLM made of hydrogenated phosphatidyl choline / caprylic & capric triglyceride / 1,3-butylene glycol / ceramide3 / **cholesterol** /etc. We measured for color stability against light and heat with chromameter. As a result of this experiment, we observed DC-liposome was more than from 1.5 to 3 times as stable as general liposome. Livability of retinol has improved from 2 to 6 times when we analyzed it by HPLC. Also, penetration effect of DC-liposome has improved. A recent development in cosmetics has been the pursuit of high functionality. However, it is a common feature that the functional raw materials are unstable for light, heat and oxygen. Therefore, new technology of stabilization for functional raw material has been required. With this trend, we will take vitamin cosmetics and their stabilization method into account. Vitamin A is the generic name for a class of nutritionally active, unsaturated hydrocarbons. It is present in animal system as A1(retinol), A2(3-dehydro-retinol) and in the plant system as carotenoid. Vitamin A2 has about 40% of the effect of A1 and both A1 and A2 exist in the form of ester of fatty acid. Retinol contains at least non-oxygenated ss-ionone ring with an attached isoprenoid side chain. And retinol that contains all of the trans double bonds in the isoprenoid side chain is the most bioactive form of vitamin A. Retinol is important in a wide variety of biological functions. These include embryonic growth and development, vertebrate vision, immune reactions and epidermal differentiation. It is also a prime candidate for cancer chemoprevention. However, it comes into question that all Vitamin As decreased their activity by isomerization, photochemical and thermal oxidation. Such degradation reactions can be reduced the available vitamin activity of stored and processed foods. In general, conditions of high moisture, low pH and high temperature decrease the stability of retinol and its relatives. Retinol is a fat-soluble material that only occurs abundantly in fish, mammalian liver, milk fat and egg yolks. Due to its hydrophobic character, retinol is usually found in a complex with lipid droplets (milk fat globules) or micelles in foods. Such a condition which is expected to protect retinol from degradative reactions, can be used as multi lamellar liposomes in the laboratory Liposomes are spherical closed vesicles of phospholipid bilayers with an entrapped aqueous phase. The lipid layers are

made up mainly of phospholipids which are amphophilic ; they have a non-polar region composed of two fatty acid and polar region composed of a phosphate group. In aqueous solution, they are arranged in bilayers, which form closed vesicles like artificial cells. The fatty acid tails, being non-polar, are located in the membranes' interior, and the polar heads turn outward in the bilayer. Liposomes are divided into two major classes based on the number of their lamellas. Multi Lamellar Vesicles(MLVs) consist of five or more lamellas and their size range from 100? to more than 1?. Unilamellar are single bilayer structures, themselves subdivided into small (SUVs, < 100?) and large(LUVs, 100 1000?). In the cosmetic area, liposome is applied to stabilize the unstable materials in exterior condition (air, light, etc) and to maximize its efficacy and to increase skin absorption by using phospholipids, which have the great affinity for skin. Retinol has also been treated as an interesting molecule to be encapsulated in liposomes. The stability and delivery of liposome-incorporated retinol have been studied in several articles. However, the stability of retinol in liposome has not been sufficiently studied. On this research, we made primary liposome firstly that is composed of retinol, **lecithin**, etc. And we made DC-liposome by encapsulating primary liposome in the SLM that makes three dimensional lamellar structure similar to skin. Then we measured for particle size and formation of liposomes by using laser light scattering system, freeze fracture-scanning electron microscopy and transmission electron microscopy. The color stability against light and heat was measured with chroma meter. we analyzed livability of retinol and penetration effect by HPLC. These results indicate that DC-liposome is more stable than general liposome and its penetration effect has improved because it was made use of skin familiar materials such as ceramide3, **cholesterol**, etc. In conclusion, for industrial fields of cosmetics and pharmaceutics, a liposome has been widely studied and used as a vehicle to deliver bioactive materials. A liposome has been especially used to promote the absorption of the bioactive materials into skins or cells, etc. In the present study, the general liposome was utilized to promote the absorption and bioavailability of the bioactive materials. With the experiments using a phospholipid, which is found in human body, the bioavailability was found to increase and this result indicates that the general liposome can effectively penetrate into the skins. However, a problem exists due to the fact that the general liposome has relatively low stability. To solve such problem, retinol was primarily nano-emulsified and dually encapsulated into the 3D structure of the lamella sheet. As a result, the primary liposome particles are located inside the multi lamella structure, with improved stability. In addition, the experimental results of the present study indicate that the DC-liposome **penetrates** into the **skin** as much as about 60% better than a general liposome. Such improvement can be due to the fact that the DC-liposome of the present study consists of skin

constituents such as phospholipid, ceramide3, cholesterol, etc.

SUBJECT HEADING: SKIN; RAW MATERIALS; PHYSICOCHEMISTRY
CONTROLLED TERM: EMULSIONS NANO; LIPOSOMES; RETINOL; STABILIZATION; ANTIWRINKLE AGENTS; SKIN CARE; RESEARCH AND DEVELOPMENTS; COMPANIES; KOREA; IFSCC; CONFERENCES

L122 ANSWER 51 OF 62 KOSMET COPYRIGHT 2007 IFSCC on STN
ACCESSION NUMBER: 26740 KOSMET Full-text
FILE SEGMENT: scientific, technical
TITLE: STUDY ON THE LAMELLAR LIQUID CRYSTAL EMULSION (LLCE) USING **LECITHIN** AND FATTY ALCOHOL
AUTHOR: KIM DH (KIM DH (1), JI HG (2), JO BK (3)=L-TEC PHARMA CHEM., KOREA (1), BIO-N TECH, KOREA (2), COREANA, KOREA (3)); JI HG; JO BK
SOURCE: 22 ND IFSCC INTERNATIONAL CONGRESS, COSMETIC SCIENCE FOR A GLOBAL MARKETPLACE, 23-26 SEPTEMBER, 2002, EDINBURGH, SCOTLAND, UNITED KINGDOM, POSTER PRESENTATION P 194, 0 REFS, ON CD ROM ONLY
Meeting Organizer: IFSCC / SOCIETY OF COSMETIC SCIENTISTS, GT HOUSE, 24-26 ROTHESAY ROAD, LUTON, BEDS LU1 1QX, UNITED KINGDOM, TEL: +44-1582-726661, FAX: +44-1582-405217, EMAIL: ifscc.scs@btinternet.com
Availability: IFSCC, SOCIETY OF COSMETIC SCIENTISTS
DOCUMENT TYPE: (POSTER)
LANGUAGE: English
ABSTRACT:

The structures that have drawn public attention greatly in the functional cosmetic and skin-related medicinal areas recently are multi-lamellar and liquid crystal. The structure of an emulsion containing aqueous phase as a binding water and fixed oil phase components forming a association compound of the multi-lamellar structure enables re-construction of the lamellar structure of the skin intercellular lipid and restoration of the moisturization function or barrier function of the skin as the function for maintaining moisture is superior and the lipid is penetrated into and maintained in the stratum corneum. In the present study, the lamellar structure is produced by using hydrogenated **lecithin**, cetyl alcohol, stearyl alcohol (cetostearyl alcohol), glyceryl stearate, and **cholesterol**, and a very large amount of liquid crystal is observed on the emulsion as a result of polarized microscopic measurement in the phase transition of the mixed system. It is seen that this LLCE is stable as a result of inspection of its stability in a cycling incubator (-20_-45_)for 6 weeks. It is also seen from the measurement of the skin barrier function by using Tewameter and Corneometer that the moisturization function of the skin and restoration of the damaged skin are significantly improved. Further, it is seen that irritation of LLCE is very small in view of the cell toxicity when it is compared with those of other general surfactants. Multi-lamellar and liquid crystals are recently noticed in the field of functional cosmetics and dermatological medicines. Generally, materials have regular particle arrangements in solid state, and become irregular when they transform into liquid state. Some materials are regular in its molecular arrangement, but are liquid at the same fluid. They are called liquid crystals. Those liquid

crystalline phases (mesomorphic) are categorized into thermotropic and lyotropic. Thermotropics are classified into smectic, nematic, and cholesteric according to the arrangement of the bar- type molecules of liquid crystal, and lyotropics are classified into cubic(isotrpoic), lamellar (neat), and hexagonal according to the shapes of molecules. Those lamellar structures are divided into lamellar gel network and lamellar liquid crystal. The merits of those lamellar emulsions are high in stability, sustainable hydration character, controlled drug release, easy formulation, well-like skin feel, and moisture maintenance effects etc. Lamella is a kind of valve structure emulsion composed of a phospholipid, a block structure of oil membrane, and a water membrane. It is very similar to the real skin structure, and the moisture of the skin can be protected by this structure. That is, as O/W outer phase in a normal emulsion system is made of a water phase, the moisture of outer phase can be evaporated quickly, owing to body temperature when applied to the skin. At this time, the emulsion balance is broken and the moisture effect, which is the main function of cosmetics, is diminished considerably. Although the W/O system can be adopted to solve this problem, it is not desirable because of the feeling on the skin. The Lamella system is the most profitable to solve those problems. That is, a)There are multi-layers of oil and water layer. If one layer of water evaporates, the next oil layer can protect the water layer below it .So, a continuing supply of moisture is possible. b)The feeling on the skin of lamella system is similar to that of O/W System. It gives peculiar feeling different from other emulsifiers. When using mixed materials of surfactants and higher fatty alcohol, the liquid crystal phase of surfactants and higher fatty alcohol are shaped around emulsion particles. When those liquid crystal phases form, the viscosity is increased and emulsion is stabilized. In this system, the viscosity varies considerably according to the cooling conditions (quick or slow refrigeration),and by maintaining conditions (temperance difference). Concerning the crystal shape of higher fatty alcohol, liquid crystal is shaped in a hexagonal state, and crystals state, which have pearl effects, are shaped in a monoclinic state. In the case of emulsion products, the highest viscosity is shown a few hours after manufacture. This is because of the regular arrangement of the formerly irregular liquid crystal phase and because of the newly formed liquid crystal phase. The reasons for using **lecithin** are: a) The peculiar feeling of **lecithin** on the skin. b) Skin familiarity -many materials make up the human skin cell wall. One of them is **lecithin**, a very important intercellular lipid. c) The formation of the lamella structure -the human skin is composed of lamella of **lecithin** system. When using **lecithin** , ceramide, and cholesterols altogether, lamella is easily formed, and artificial skins form around the outer walls of real skin. d) Increased moisturizing effect -compared to normal O/W,W/O systems, lamella structure has a high capacity of moisture

keeping, owing to its peculiar structure. e) Improved skin penetration effects -by the skin familiarity, cosmetic ingredient can **penetrate skin** more deeply. In this research, lamellar liquid crystal emulsion (LLCE)was produced using higher fatty alcohol, **lecithin** , and cholesterols to measure skin barrier function, and compared its cell toxicity with that of general surfactant. In this research, after measuring in mixture status with a polarized microscope, much of lamella structure and liquid crystal in emulsion phase were observed using hydrogenated **lecithin**, cetyl alcohol, stearyl alcohol (cetostearyl alcohol), glyceryl stearate, and **cholesterol**. The stability of LLCE was proven in a cycling incubator(-20 _-_for a 6 week experiment. After measuring using Tewameter and Corneometer to measure skin barrier function, the moisturization effect and improvement of damaged skin was considerably high. Further, cell toxicity was very low compared to normal surfactants.

SUBJECT HEADING: ANALYSIS
CONTROLLED TERM: LAMELLAR STRUCTURES; LIQUID CRYSTALS; EMULSIONS; **LECITHINS**; FATTY ALCOHOLS; GLYCERYL STEARATE; **CHOLESTEROL**; CETYL ALCOHOL; STEARYL ALCOHOL; FORMULATIONS; MOISTURIZATION; CORNEOMETER; SKIN; SKIN SURFACE; BARRIER FUNCTION; LIGHT POLARIZED ; RESEARCH AND DEVELOPMENT; COUNTRIES; KOREA; CREATIVITY; COMPANIES; SCIENCE

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ACCESSION NUMBER: 2006354767 EMBASE Full-text
TITLE: Chronobiology: Biological clocks and rhythms of the skin.
AUTHOR: Mehling A.; Fluhr J.W.
CORPORATE SOURCE: Dr. J.W. Fluhr, Department of Dermatology, Friedrich Schiller University Jena, Erfurter Strasse 35, DE-07743 Jena, Germany. fluhr@derma.uni-jena.de
SOURCE: Skin Pharmacology and Physiology, (2006) Vol. 19, No. 4, pp. 182-189. .
Refs: 45
ISSN: 1660-5527 CODEN: SPPKC4
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 013 Dermatology and Venereology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 8 Aug 2006
Last Updated on STN: 8 Aug 2006

ABSTRACT: The cyclicity of time affects virtually all aspects of our being and is the basis of the underlying rhythmicity which is typical of our lives. To 'tell time', most living organisms use internal timing mechanisms known as 'biological clocks'. These 'clocks' coordinate our physiological and behavioral functions and interactions with our environment. One of the strongest influences on rhythmicity is the solar day. The study of these temporal rhythms in biological systems has been coined chronobiology. With the present article we aim to give an overview on chronobiology. Examples of chronobiological effects on skin will be described. Particular emphasis will

be placed on circadian rhythms (including rhythms that take place within a 24 hour period, including so-called infradian and/or diurnal rhythms) but also on seasonal variations (circaannual rhythms).

CONTROLLED TERM: Medical Descriptors:
*skin function
*chronobiology
*biological rhythm
chronopharmacology
circadian rhythm
seasonal variation
genetic analysis
cutaneous parameters
sebum secretion
skin water loss
skin surface
skin temperature
endocrine function
environmental exposure
hydrocortisone blood level
solar radiation
temperature dependence
humidity
skin nerve
serotoninergic system
sex difference
ultraviolet B radiation
ultraviolet A radiation
catalase deficiency
vitiligo
xeroderma pigmentosum
photodermatosis
enzyme activity
disease predisposition
xerosis
skin examination
skin permeability
drug penetration
drug delivery system
unspecified side effect: SI, side effect
drug safety
atopic dermatitis: ET, etiology
skin sensitivity
skin disease: DT, drug therapy
skin cancer: DT, drug therapy
skin cancer: RT, radiotherapy
cancer therapy
DNA synthesis
cancer radiotherapy
human
review
priority journal

CONTROLLED TERM: Drug Descriptors:
cosmetic
hydrocortisone: EC, endogenous compound
tumor necrosis factor alpha: EC, endogenous compound
interleukin 10: EC, endogenous compound
granulocyte macrophage colony stimulating factor: EC, endogenous compound

cytokine: EC, endogenous compound
catalase: EC, endogenous compound
skin lipid: EC, endogenous compound
cholesterol: EC, endogenous compound
fatty acid: EC, endogenous compound
potassium: EC, endogenous compound
lactic acid: EC, endogenous compound
dodecyl sulfate sodium
trypsin: EC, endogenous compound
substance P: EC, endogenous compound
methacholine: EC, endogenous compound
dermatological agent: AE, adverse drug reaction
dermatological agent: DT, drug therapy
dermatological agent: IV, intravenous drug administration
dermatological agent: PR, pharmaceutics
dermatological agent: PK, pharmacokinetics
dermatological agent: PD, pharmacology
dermatological agent: TD, transdermal drug administration
tulobuterol: DT, drug therapy
tulobuterol: PR, pharmaceutics
tulobuterol: PD, pharmacology
tulobuterol: TD, transdermal drug administration
histamine
antineoplastic agent: DT, drug therapy

CAS REGISTRY NO.: (hydrocortisone) 50-23-7; (catalase) 9001-05-2; (cholesterol) 57-88-5; (potassium) 7440-09-7; (lactic acid) 113-21-3, 50-21-5; (dodecyl sulfate sodium) 151-21-3; (trypsin) 9002-07-7; (substance P) 33507-63-0; (methacholine) 55-92-5; (tulobuterol) 41570-61-0, 56776-01-3; (histamine) 51-45-6, 56-92-8, 93443-21-1

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ACCESSION NUMBER: 2005431468 EMBASE Full-text
TITLE: Controlled release systems for insulin delivery.
AUTHOR: Chu L.-Y.
CORPORATE SOURCE: L.-Y. Chu, School of Chemical Engineering, Institute for Nanobiomedical Technology and Membrane Biology, Sichuan University, Chengdu, Sichuan 610065, China. chuly@scu.edu.cn
SOURCE: Expert Opinion on Therapeutic Patents, (2005) Vol. 15, No. 9, pp. 1147-1155. .
Refs: 101
ISSN: 1354-3776 CODEN: EOTPEG
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 13 Oct 2005
Last Updated on STN: 13 Oct 2005

ABSTRACT: Diabetes mellitus is a major cause of mortality in industrialised countries, and insulin has remained indispensable in the treatment of diabetes mellitus since its discovery. Generally, patients with diabetes mellitus need

a relatively constant basal insulin supply to mimic a near-normal physiological pattern of insulin secretion. However, as a consequence of very short in vivo half-lifes, poor oral bioavailability and current lack of alternative delivery routes, insulin requires single or multiple daily subcutaneous injections to achieve the desired therapeutic effect, which is inconvenient and painful and with poor patient compliance. Therefore, there is a need for insulin delivery systems that have the capability of releasing the loaded insulin at a controlled and sustained rate for a prolonged period. This review examines recent (2000 - 2004) patents on the controlled release systems for insulin delivery, including those for injectable, oral, pulmonary and transdermal delivery, and the glucose-responsive controlled-release systems. .COPYRGT. 2005 Ashley Publications Ltd.

CONTROLLED TERM: Medical Descriptors:
*diabetes mellitus: DT, drug therapy
*controlled release formulation
drug delivery system
mortality
insulin release
drug half life
drug bioavailability
patient compliance
sustained release formulation
systematic review
patent
injection site reaction: SI, side effect
hyperinsulinemia: SI, side effect
implant
insulin pump
microcapsule
hydrogel
microemulsion
tablet formulation
human
nonhuman
review
Drug Descriptors:
*insulin: AE, adverse drug reaction
*insulin: CB, drug combination
*insulin: DO, drug dose
*insulin: DT, drug therapy
*insulin: PR, pharmaceutics
*insulin: PK, pharmacokinetics
*insulin: IH, inhalational drug administration
*insulin: PO, oral drug administration
*insulin: PA, parenteral drug administration
*insulin: SC, subcutaneous drug administration
*insulin: TD, transdermal drug administration
polyglactin: PR, pharmaceutics
ethylene glycol: PR, pharmaceutics
cysteine conjugate: PR, pharmaceutics
polycarbophil: PR, pharmaceutics
polymethacrylic acid: PR, pharmaceutics
polymer: PR, pharmaceutics
chitosan: PR, pharmaceutics
carboxymethylcellulose: PR, pharmaceutics
copolymer: PR, pharmaceutics
concanavalin A: CB, drug combination
concanavalin A: PR, pharmaceutics
insulin derivative: PD, pharmacology

streptozocin: PR, pharmaceutics
phosphatidylcholine: PR, pharmaceutics
palmitic acid isopropyl ester: PR, pharmaceutics
dimethyl sulfone: PR, pharmaceutics
hyaluronic acid: PR, pharmaceutics
recombinant human insulin: PR, pharmaceutics
hydroxypropylcellulose: PR, pharmaceutics
ovomucoid: PR, pharmaceutics

CAS REGISTRY NO.: (insulin) 9004-10-8; (polyglactin) 26780-50-7, 34346-01-5; (ethylene glycol) 107-21-1; (polycarbophil) 9003-97-8; (polymethacrylic acid) 25087-26-7; (chitosan) 9012-76-4; (carboxymethylcellulose) 8050-38-2, 9000-11-7, 9004-32-4, 9050-04-8; (concanavalin A) 11028-71-0; (streptozocin) 18883-66-4; (phosphatidylcholine) 55128-59-1, 8002-43-5; (palmitic acid isopropyl ester) 142-91-6; (dimethyl sulfone) 67-71-0; (hyaluronic acid) 31799-91-4, 9004-61-9, 9067-32-7; (hydroxypropylcellulose) 9004-64-2

COMPANY NAME: Novo Nordisk

L122 ANSWER 54 OF 62 EMBASE

ACCESSION NUMBER: 2005468930 EMBASE Full-text

TITLE: [The magistral formulation in the WHO analgesic scale as a pharmaceutical care strategy].
LA FORMULACION MAGISTRAL EN LA ESCALERA ANALGESICA DE LA OMS COMO ESTRATEGIA DE LA ATENCION FARMACEUTICA.

AUTHOR: Minguez A.; De Andres J.

CORPORATE SOURCE: A. Minguez, Unidad Multidisciplinar de Dolor, Consorcio Hospital General Universitario, Avda. Tres Cruces, s/n, 46014 Valencia, Spain

SOURCE: Revista de la Sociedad Espanola del Dolor, (2005) Vol. 12, No. 4, pp. 235-241. .
Refs: 33
ISSN: 1134-8046 CODEN: RSEDF

COUNTRY: Spain

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 008 Neurology and Neurosurgery
024 Anesthesiology
036 Health Policy, Economics and Management
037 Drug Literature Index
039 Pharmacy

LANGUAGE: Spanish

SUMMARY LANGUAGE: English; Spanish

ENTRY DATE: Entered STN: 28 Nov 2005
Last Updated on STN: 28 Nov 2005

ABSTRACT: A magistral formulation (MF) is a drug prepared for a given patient by the pharmacist or under his/her supervision, specifically according to a detailed medical prescription of the medicinal substances that it contains and applying the technical and scientific standards of the pharmaceutical art, that is dispensed by the pharmacist providing the patient with adequate information. This is an possible cost-effective strategy that can fill in a safe and effective way some of the therapeutic gaps or deficiencies that are found in the analgesic arsenal available in the market. The participation of the hospital pharmacist in the MF is regulated by law in terms of manufacturing and production, but the integration of this professional in the clinical team that provides care to patients facilitates the identification of therapeutic deficiencies that can be overcame by the MF. In this paper we describe the preparations, elaborated as MF and classified according to their route of administration, that are provided by the assistant hospital pharmacist of the Pain Unit at the General University Hospital Trust of Valencia, as well as

their position within the WHO analgesic scale. Morphine preparations in drop[illegible] wi
syrup or lidocain gel are prepared for their oral administration, solutions of
acetic acid, dexametasone and lidocaine with different strengths are prepared
for their transdermal administration; morphine and capsaicine plus ketamine
gels are prepared for their topical administration, as well as injectable
preparations for their intraarticular or intraspinal administration. .COPYRGT.
2005 Sociedad Espanola del Dolor.

CONTROLLED TERM: Medical Descriptors:
*pharmaceutical care
*analgesia
*world health organization analgesic scale
*drug formulation
*magistral formulation
*pain: DT, drug therapy
pharmacist
prescription
good manufacturing practice
drug information
cost effectiveness analysis
drug safety
drug efficacy
hospital pharmacy
drug administration route
article
Drug Descriptors:
*analgesic agent: AD, drug administration
*analgesic agent: DO, drug dose
*analgesic agent: DT, drug therapy
*analgesic agent: PR, pharmaceutics
*analgesic agent: AR, intraarticular drug administration
*analgesic agent: SP, intraspinal drug administration
*analgesic agent: PO, oral drug administration
*analgesic agent: TP, topical drug administration
***analgesic agent: TD, transdermal drug administration**
arsenal
morphine: AD, drug administration
morphine: DO, drug dose
morphine: PR, pharmaceutics
morphine: AR, intraarticular drug administration
morphine: SP, intraspinal drug administration
morphine: PO, oral drug administration
morphine: TP, topical drug administration
lidocaine: AD, drug administration
lidocaine: PR, pharmaceutics
lidocaine: PO, oral drug administration
lidocaine: TP, topical drug administration
lidocaine: TD, transdermal drug administration
acetic acid: AD, drug administration
acetic acid: PR, pharmaceutics
acetic acid: TD, transdermal drug administration
dexamethasone: AD, drug administration
dexamethasone: PR, pharmaceutics
dexamethasone: TD, transdermal drug administration
capsaicin plus ketamine: AD, drug administration
capsaicin plus ketamine: PR, pharmaceutics
capsaicin plus ketamine: AR, intraarticular drug administration
capsaicin plus ketamine: SP, intraspinal drug

administration
capsaicin plus ketamine: TP, topical drug administration
carboxymethylcellulose: PR, pharmaceutics
water: PR, pharmaceutics
ondansetron: PR, pharmaceutics
ondansetron: PO, oral drug administration
indometacin: PR, pharmaceutics
indometacin: TP, topical drug administration
propylene glycol: PR, pharmaceutics
dodecyl sulfate sodium: PR, pharmaceutics
alcohol: PR, pharmaceutics
phosphatidylcholine: PR, pharmaceutics
palmitic acid isopropyl ester: PR, pharmaceutics
poloxamer: PR, pharmaceutics
excipient: PR, pharmaceutics
phenol: AD, drug administration
phenol: PR, pharmaceutics
phenol: AR, intraarticular drug administration
glucose: PR, pharmaceutics
glycerol: PR, pharmaceutics
unclassified drug
intrasite
capsaicin

CAS REGISTRY NO.: (morphine) 52-26-6, 57-27-2; (lidocaine) 137-58-6, 24847-67-4, 56934-02-2, 73-78-9; (acetic acid) 127-08-2, 127-09-3, 64-19-7, 71-50-1; (dexamethasone) 50-02-2; (carboxymethylcellulose) 8050-38-2, 9000-11-7, 9004-32-4, 9050-04-8; (water) 7732-18-5; (ondansetron) 103639-04-9, 116002-70-1, 99614-01-4; (indometacin) 53-86-1, 74252-25-8, 7681-54-1; (propylene glycol) 57-55-6; (dodecyl sulfate sodium) 151-21-3; (alcohol) 64-17-5; (phosphatidylcholine) 55128-59-1, 8002-43-5; (palmitic acid isopropyl ester) 142-91-6; (poloxamer) 9003-11-6; (phenol) 108-95-2, 3229-70-7; (glucose) 50-99-7, 84778-64-3; (glycerol) 56-81-5; (capsaicin) 404-86-4

CHEMICAL NAME: Intrasite; Capsidol

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ACCESSION NUMBER: 2004333823 EMBASE Full-text

TITLE: Review of traditional and novel modalities that enhance the permeability of local therapeutics across the stratum corneum.

AUTHOR: Ting W.W.; Vest C.D.; Sontheimer R.D.

CORPORATE SOURCE: Dr. R.D. Sontheimer, Department of Dermatology, Univ. of Iowa Colllege of Medicine, University of Iowa Health Care, 200 Hawkins Dr., Iowa City, IA 52242-1090, United States. richard-sontheimer@uiowa.edu

SOURCE: International Journal of Dermatology, (2004) Vol. 43, No. 7, pp. 538-547. .
Refs: 87
ISSN: 0011-9059 CODEN: IJDEBB

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 013 Dermatology and Venereology
030 Pharmacology
037 Drug Literature Index
039 Pharmacy

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Aug 2004

Last Updated on STN: 19 Aug 2004

CONTROLLED TERM: Medical Descriptors:
*drug penetration
*stratum corneum
drug transport
physical chemistry
drug diffusion
drug solubility
drug delivery system
hydration
occlusion
film coating
transdermal patch
genital herpes: DT, drug therapy
Herpes virus
encapsulation
acne vulgaris: DT, drug therapy
skin permeability
laser surgery
needle
hair follicle
iontophoresis
electroporation
human
review
Drug Descriptors:
steroid: PR, pharmaceutics
steroid: PK, pharmacokinetics
steroid: TP, topical drug administration
steroid: TD, transdermal drug administration
fludroxycortide: PR, pharmaceutics
fludroxycortide: PK, pharmacokinetics
fludroxycortide: TD, transdermal drug administration
adhesive agent
polyurethan
duoderm
glyceryl trinitrate: PR, pharmaceutics
glyceryl trinitrate: PK, pharmacokinetics
glyceryl trinitrate: TD, transdermal drug administration
clonidine: PR, pharmaceutics
clonidine: PK, pharmacokinetics
clonidine: TD, transdermal drug administration
scopolamine: PR, pharmaceutics
scopolamine: PK, pharmacokinetics
scopolamine: TD, transdermal drug administration
nicotine: PR, pharmaceutics
nicotine: PK, pharmacokinetics
nicotine: TD, transdermal drug administration
fentanyl: PR, pharmaceutics
fentanyl: PK, pharmacokinetics
fentanyl: TD, transdermal drug administration
estradiol: PR, pharmaceutics
estradiol: PK, pharmacokinetics
estradiol: TD, transdermal drug administration
solvent
dimethyl sulfoxide
liposome
decyl methyl sulfoxide

myristic acid isopropyl ester
alpha interferon: DT, drug therapy
alpha interferon: PR, pharmaceutics
alpha interferon: PK, pharmacokinetics
alpha interferon: TP, topical drug administration
electrolyte
antioxidant
drug preservative
retinoic acid: DT, drug therapy
retinoic acid: PR, pharmaceutics
retinoic acid: PK, pharmacokinetics
retinoic acid: TP, topical drug administration
phosphatidylcholine
retin a micro

CAS REGISTRY NO.: (fludroxycortide) 1524-88-5; (polyurethan) 61789-63-7; (glyceryl trinitrate) 55-63-0; (clonidine) 4205-90-7, 4205-91-8, 57066-25-8; (scopolamine) 138-12-5, 51-34-3, 55-16-3; (nicotine) 54-11-5; (fentanyl) 437-38-7; (estradiol) 50-28-2; (**dimethyl sulfoxide**) **67-68-5**; (decyl methyl sulfoxide) 3079-28-5; (myristic acid isopropyl ester) 110-27-0; (retinoic acid) 302-79-4; (phosphatidylcholine) 55128-59-1, 8002-43-5

CHEMICAL NAME: (1) Retin a micro

COMPANY NAME: (1) Ortho

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ACCESSION NUMBER: 2004338320 EMBASE Full-text

TITLE: Visualization of skin penetration using confocal laser scanning microscopy.

AUTHOR: Alvarez-Roman R.; Naik A.; Kalia Y.N.; Fessi H.; Guy R.H.

CORPORATE SOURCE: R.H. Guy, Ctr. Interuniv. Rech. d'Enseignement, Universities of Geneva and Lyon, Archamps, France. richard.guy@pharm.unige.ch

SOURCE: European Journal of Pharmaceutics and Biopharmaceutics, (2004) Vol. 58, No. 2, pp. 301-316. .
Refs: 104
ISSN: 0939-6411 CODEN: EJPBEL

PUBLISHER IDENT.: S 0939-6411(04)00098-0

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 013 Dermatology and Venereology
037 Drug Literature Index
039 Pharmacy

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 26 Aug 2004
Last Updated on STN: 26 Aug 2004

ABSTRACT: The use of skin as an alternative route for administering systemically active drugs has attracted considerable interest in recent years. However, the skin provides an excellent barrier, which limits the number of drug molecules suitable for transdermal delivery. Thus, in order to improve cutaneous delivery, it is necessary to adopt an enhancement method, either (i) passively using novel formulations, e.g. microemulsions, liposomes, and colloidal polymeric suspensions, or more conventional skin permeation enhancers, or (ii) with a physical approach, such as, iontophoresis, sonophoresis or electroporation. Although there has been much progress, the precise modes of action of the different techniques used are far from well-understood. The objective of this review, therefore, is to evaluate how confocal laser scanning microscopy may contribute to the determination of the

mechanisms of diverse skin penetration enhancement strategies.

CONTROLLED TERM: Medical Descriptors:
*skin penetration
*confocal laser microscopy
drug delivery system
drug formulation
microemulsion
iontophoresis
electroporation
analytic method
skin structure
image analysis
physical chemistry
lipophilicity
drug penetration
photodynamic therapy
autofluorescence
ultrasound
encapsulation
human
nonhuman
review
Drug Descriptors:
liposome: AD, drug administration
liposome: PR, pharmaceutics
liposome: TP, topical drug administration
propylene glycol: PR, pharmaceutics
fluorescent dye: PR, pharmaceutics
photosensitizing agent: PR, pharmaceutics
aminolevulinic acid: PR, pharmaceutics
calcein
nile red
fluorescein isothiocyanate: PR, pharmaceutics
polylysine: PR, pharmaceutics
oligodeoxynucleotide
dextran: AD, drug administration
dextran: PR, pharmaceutics
dextran: TD, transdermal drug administration
dodecyl sulfate sodium: PR, pharmaceutics
dodecyltrimethylammonium bromide: PR, pharmaceutics
octadecylamine: PR, pharmaceutics
fluorescein isothiocyanate dextran: PR, pharmaceutics
phosphatidylcholine: PR, pharmaceutics
phosphatidylserine: PR, pharmaceutics
4 (4 diethylamino)styryl n methylpyridium iodide: PR, pharmaceutics
iodine derivative: PR, pharmaceutics
unclassified drug

CAS REGISTRY NO.: (propylene glycol) 57-55-6; (aminolevulinic acid) 106-60-5; (calcein) 1461-15-0; (nile red) 7385-67-3; (fluorescein isothiocyanate) 25168-13-2, 27072-45-3, 3326-32-7; (polylysine) 25104-18-1, 25988-63-0, 33960-24-6, 38000-06-5, 73565-56-7; (dextran) 87915-38-6, 9014-78-2; (dodecyl sulfate sodium) 151-21-3; (dodecyltrimethylammonium bromide) 1119-94-4; (octadecylamine) 124-30-1; (fluorescein isothiocyanate dextran) 60842-46-8; (phosphatidylcholine) 55128-59-1, 8002-43-5

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ACCESSION NUMBER: 2004009426 EMBASE Full-text
TITLE: Overcoming the challenges of noninvasive protein and peptide delivery.
AUTHOR: DeFelippis M.R.
CORPORATE SOURCE: Dr. M.R. DeFelippis, Eli Lilly and Company, Indianapolis, IN, United States
SOURCE: American Pharmaceutical Review, (2003) Vol. 6, No. 4, pp. 21-30. .
Refs: 75
ISSN: 1099-8012 CODEN: APHRFS
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
039 Pharmacy
048 Gastroenterology
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Jan 2004
Last Updated on STN: 16 Jan 2004
CONTROLLED TERM: Medical Descriptors:
*drug delivery system
drug research
drug manufacture
United States
biotechnology
genomics
proteomics
freeze drying
drug formulation
drug administration route
drug half life
drug blood level
diabetes mellitus: DT, drug therapy
syringe
needle
infusion pump
physical chemistry
encapsulation
site directed mutagenesis
protein structure
drug penetration
drug bioavailability
cystic fibrosis: DT, drug therapy
dry powder
nebulizer
electrospray
human
controlled study
review
Drug Descriptors:
*protein: AN, drug analysis
*protein: CR, drug concentration
*protein: DV, drug development
*protein: PR, pharmaceutics
*protein: PK, pharmacokinetics

*protein: PD, pharmacology
*protein: BD, buccal drug administration
*protein: IH, inhalational drug administration
*protein: NA, intranasal drug administration
*protein: IO, intraocular drug administration
*protein: VA, intravaginal drug administration
*protein: PO, oral drug administration
*protein: RC, rectal drug administration
*protein: LI, sublingual drug administration
***protein: TD, transdermal drug administration**
*peptide: AN, drug analysis
*peptide: CR, drug concentration
*peptide: DV, drug development
*peptide: PR, pharmaceutics
*peptide: PK, pharmacokinetics
*peptide: PD, pharmacology
*peptide: BD, buccal drug administration
*peptide: IH, inhalational drug administration
*peptide: NA, intranasal drug administration
*peptide: IO, intraocular drug administration
*peptide: VA, intravaginal drug administration
*peptide: PO, oral drug administration
*peptide: RC, rectal drug administration
*peptide: LI, sublingual drug administration
***peptide: TD, transdermal drug administration**
insulin: DV, drug development
insulin: DT, drug therapy
insulin: PR, pharmaceutics
insulin: PK, pharmacokinetics
insulin: IH, inhalational drug administration
insulin: NA, intranasal drug administration
insulin: PO, oral drug administration
insulin: SC, subcutaneous drug administration
microsphere: PR, pharmaceutics
novel erythropoiesis stimulating protein: AN, drug analysis
novel erythropoiesis stimulating protein: DV, drug development
novel erythropoiesis stimulating protein: PR, pharmaceutics
novel erythropoiesis stimulating protein: PK, pharmacokinetics
oxytocin: PR, pharmaceutics
oxytocin: NA, intranasal drug administration
desmopressin: PR, pharmaceutics
desmopressin: NA, intranasal drug administration
buserelin: PR, pharmaceutics
buserelin: NA, intranasal drug administration
drug additive: PR, pharmaceutics
deoxycholate sodium: PR, pharmaceutics
deoxycholate sodium: PD, pharmacology
glycocholate sodium: PR, pharmaceutics
glycocholate sodium: PD, pharmacology
taurocholic acid: PR, pharmaceutics
taurocholic acid: PD, pharmacology
taurodihydrofusidate: PR, pharmaceutics
taurodihydrofusidate: PD, pharmacology
cyclodextrin: PR, pharmaceutics
cyclodextrin: PD, pharmacology
edetic acid: PR, pharmaceutics
edetic acid: PD, pharmacology
salicylic acid derivative: PR, pharmaceutics

salicylic acid derivative: PD, pharmacology
citric acid: PR, pharmaceutics
citric acid: PD, pharmacology
dodecyl sulfate sodium: PR, pharmaceutics
dodecyl sulfate sodium: PD, pharmacology
polidocanol: PR, pharmaceutics
polidocanol: PD, pharmacology
octanoic acid: PR, pharmaceutics
octanoic acid: PD, pharmacology
oleic acid: PR, pharmaceutics
oleic acid: PD, pharmacology
glycerol oleate: PR, pharmaceutics
glycerol oleate: PD, pharmacology
glucagon like peptide: DV, drug development
glucagon like peptide: DT, drug therapy
glucagon like peptide: PR, pharmaceutics
glucagon like peptide: PK, pharmacokinetics
glucagon like peptide: BD, buccal drug administration
deoxyribonuclease: DT, drug therapy
deoxyribonuclease: PR, pharmaceutics
deoxyribonuclease: IH, inhalational drug administration

CAS REGISTRY NO.: (protein) 67254-75-5; (insulin) 9004-10-8; (oxytocin) 50-56-6, 54577-94-5; (desmopressin) 16679-58-6; (buserelin) 57982-77-1; (deoxycholate sodium) 302-95-4; (glycocholate sodium) 863-57-0; (taurocholic acid) 145-42-6, 59005-70-8, 81-24-3; (taurodihydrofusidate) 42907-93-7, 53163-88-5; (cyclodextrin) 12619-70-4; (edetic acid) 150-43-6, 60-00-4; (citric acid) 126-44-3, 5949-29-1, 77-92-9, 8002-14-0; (dodecyl sulfate sodium) **151-21-3**; (polidocanol) 60828-78-6, 9002-92-0; (octanoic acid) 124-07-2, 1984-06-1, 74-81-7; (oleic acid) 112-80-1, 115-06-0; (glycerol oleate) 111-03-5, 11121-34-9, 25496-72-4, 3443-84-3, 37220-82-9; (glucagon like peptide) 82905-30-4; (deoxyribonuclease) 37211-67-9

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ACCESSION NUMBER: 2002005851 EMBASE Full-text
TITLE: Comparison of the effects of various transmucosal absorption enhancers on buccal insulin delivery: In vitro and in vivo studies.
AUTHOR: Yang T.Z.; Zhang Q.; Chen D.B.; Nagai T.
CORPORATE SOURCE: T. Nagai, Department of Pharmaceutics, Hoshi University, Ebara 2-4-41, Shinagawa-ku, Tokyo 142-8501, Japan. nagai@hoshi.ac.jp
SOURCE: S.T.P. Pharma Sciences, (2001) Vol. 11, No. 6, pp. 415-419.
Refs: 25
ISSN: 1157-1489 CODEN: STSSE5
COUNTRY: France
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 17 Jan 2002
Last Updated on STN: 17 Jan 2002

ABSTRACT: The effects of various transmucosal absorption enhancers on insulin permeation were studied in vitro and in vivo. The penetration of insulin through hamster and rabbit buccal membranes was investigated in vitro. The

results showed that there was a statistically significant increase in the permeability of insulin compared with controls after concomitant administration with Brij 78, sodium deoxycholate, **sodium lauryl** ***sulfate*** and lecithin, but aprotinin, bacitracin, 1-menthol and poloxamer were less effective. The buccal delivery of insulin was investigated in vivo, in rats. Insulin absorption was estimated from the cumulative response of the serum glucose concentration and in comparison to a SC dose/response curve. Buccal insulin efficacy in the absence of co-administration absorption enhancers was very low in relation to the SC administration of insulin. The values all increased significantly following concomitant administration via the buccal route with sodium deoxycholate, ***sodium*** **lauryl sulfate**, lecithin and Brij 78, Fr (relative pharmacological bioavailability) ($P < 0.05$). From the present studies, it is concluded that with the most effective absorption enhancers, buccal insulin was one-fifth to one-fourth as effective as SC insulin. For the enhancement of these promoters, the results of in vitro experiments were in agreement with the in vivo results.

CONTROLLED TERM: Medical Descriptors:
*drug absorption
*drug delivery system
cheek mucosa
insulin treatment
drug transport
membrane permeability
drug bioavailability
hamster
rabbit
glucose blood level
dose response
drug formulation
nonhuman
male
rat
animal experiment
animal model
controlled study
animal tissue
article
Drug Descriptors:
*insulin: AD, drug administration
*insulin: CB, drug combination
*insulin: DO, drug dose
*insulin: PR, pharmaceutics
*insulin: PK, pharmacokinetics
***insulin: TD, transdermal drug administration**
***deoxycholate sodium: CB, drug combination**
*dodecyl sulfate sodium: CB, drug combination
***phosphatidylcholine: CB, drug combination**
*polyoxyethylene stearyl ether: CB, drug combination
glucose: EC, endogenous compound

CAS REGISTRY NO.: (insulin) 9004-10-8; (deoxycholate sodium) 302-95-4; (dodecyl sulfate sodium) **151-21-3**; (phosphatidylcholine) 55128-59-1, 8002-43-5; (polyoxyethylene stearyl ether) 9005-00-9; (glucose) 50-99-7, 84778-64-3

CHEMICAL NAME: (1) Brij 78

COMPANY NAME: (1) Sigma (United States); Xuzhou biochemical (China)

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ACCESSION NUMBER: 96059463 EMBASE Full-text
DOCUMENT NUMBER: 1996059463
TITLE: The skin: A pathway for systemic treatment with patches and lipid-based agent carriers.
AUTHOR: Cevc G.; Blume G.; Schatzlein A.; Gebauer D.; Paul A.
CORPORATE SOURCE: Medizinische Biophysik, Technische Universitat Munchen, Klinikum r.d.I., Ismaningerstr. 22,D-81675 Munchen, Germany
SOURCE: Advanced Drug Delivery Reviews, (1996) Vol. 18, No. 3, pp. 349-378. .
ISSN: 0169-409X CODEN: ADDREP
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 013 Dermatology and Venereology
023 Nuclear Medicine
027 Biophysics, Bioengineering and Medical Instrumentation
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19 Mar 1996
Last Updated on STN: 19 Mar 1996

ABSTRACT: The fate of epicutaneously administered drug solutions and lipid suspensions and their usefulness for promoting intra- and transcutaneous agent transport are reviewed. Suspensions are argued to act in multiple ways on the skin. Some lipids directly lower the skin permeability barrier, which resides primarily in the stratum corneum. This improves the efficacy of agent transfer and holds true, in particular, for substances with a relatively high polarity and skin-perturbation capability. One of the reasons for this is the fluidization of skin lipids and/or the improved skin surface hydration by lipoidal skin permeation enhancers. The induction of (boundary leaky) lipid domains in the stratum corneum or lipid-agent complexation followed by the diffusion of the resulting entities into the skin are also potentially useful. Most lipid aggregates, however, dehydrate and form a 'crust' either on the skin or in the outermost horny layer region, when they are applied non-occlusively. Any such superficial lipid deposit then acts as a reservoir from which the sufficiently mobile agents can diffuse into the skin cells or even into the viable (epi)dermis. It is largely the rate of the drug exchange between the exogenous lipid multilayers on/in the skin and the biological surrounding which determines whether the superficial lipid deposit will increase or decrease the overall efficacy of the transcutaneous agent delivery. In order to obtain significant material amounts reproducibly and deep under the skin, specially optimized lipid aggregates must be used. These are characterized primarily by their extremely high, and stress-dependent, deformability. Such aggregates can therefore squeeze themselves between the cells in the stratum corneum in spite of their large size, probably under the influence of the transepidermal water activity gradient. (The postulated central role of hydrotaxis in the transport of lipid aggregates across the skin explains why the skin occlusion normally lowers the rate of the transcutaneous lipid vesicle transfer while it increases the rate of the concentration-driven molecular permeation across the skin.) Irrespective of the type of application, skin is nearly totally refractive to the penetration of (ordered) gel phase vesicles. This is not the case for some lipid vesicles formulations with fluid membranes (liposomes) which were shown already to bring more drugs (such as corticosteroids or cyclosporin) into the skin than the conventional hydrogels or ointments. The attempts to employ similar liposomes for the systemic drug delivery across the skin, however, were nearly always elusive. Only the most modern self-optimizing aggregates with the ultraflexible membranes (transfersomes) are able to deliver drugs reproducibly either into or through the skin, depending on the choice of

administration or application, with a very high efficacy. Such highly deformable skin, depending on the choice of administration or application, with a very high efficacy. Such highly deformable lipid aggregates are therefore already being tested as drug carriers in several therapeutic applications on animals and humans.

CONTROLLED TERM: Medical Descriptors:
*permeability barrier
*skin
animal model
clinical trial
diffusion
drug transport
human
micelle
nonhuman
partition coefficient
priority journal
review
stratum corneum
tissue distribution
topical drug administration
transdermal drug administration
pharmaceutics
*drug delivery system
hydrogel
ointment
suspension
Drug Descriptors:
*drug carrier: PR, pharmaceutics
*liposome: PR, pharmaceutics
*radioisotope
alcohol: PR, pharmaceutics
corticosteroid: PR, pharmaceutics
cyclosporin: PR, pharmaceutics
diacylglycerol: PR, pharmaceutics
dimethyl sulfoxide: PR, pharmaceutics
dodecyl sulfate sodium: PR, pharmaceutics
drug solution: PR, pharmaceutics
fatty acid: PR, pharmaceutics
insulin: PK, pharmacokinetics
insulin: PR, pharmaceutics
laurocapram: PR, pharmaceutics
local anesthetic agent: PK, pharmacokinetics
local anesthetic agent: PR, pharmaceutics
monoacylglycerol: PR, pharmaceutics
oleic acid: PR, pharmaceutics
penetration enhancing agent: PR, pharmaceutics
phosphatidylcholine: PK, pharmacokinetics
phosphatidylcholine: PR, pharmaceutics
polidocanol: PR, pharmaceutics
propylene glycol: PR, pharmaceutics
skin lipid: EC, endogenous compound
solvent: PR, pharmaceutics
surfactant: PR, pharmaceutics
unindexed drug
urea derivative: PR, pharmaceutics

CAS REGISTRY NO.: (alcohol) 64-17-5; (cyclosporin) 79217-60-0; (**dimethyl sulfoxide**) 67-68-5; (dodecyl sulfate sodium) 151-21-3; (insulin)

(laurocapram) 59227-89-3; (oleic acid) 112-80-1, 115-06-0; (phosphatidylcholine) 55143-59-1, 8002-43-5; (polidocanol) 60828-78-6, 9002-92-0; (propylene glycol) 57-55-6

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ACCESSION NUMBER: 93168640 EMBASE Full-text
DOCUMENT NUMBER: 1993168640
TITLE: Transdermal enhancer patent literature.
AUTHOR: Santus G.C.; Baker R.W.
CORPORATE SOURCE: Recordati S.p.A., Via M. Civatali, 1,Milano, Italy
SOURCE: Journal of Controlled Release, (1993) Vol. 25, No. 1-2, pp. 1-20. .
ISSN: 0168-3659 CODEN: JCREEC
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 013 Dermatology and Venereology
027 Biophysics, Bioengineering and Medical Instrumentation
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 11 Jul 1993
Last Updated on STN: 11 Jul 1993

ABSTRACT: Patents are an under-utilized literature resource. This observation is particularly true in the area of transdermal drug permeation enhancement for which much of the most important research is being performed in industrial laboratories. This work is only reported in the patent literature. This review covers 203 patents on the general topic of skin permeation enhancement, issued prior to December 1991. The patents are organized into four main categories: (1) broad general patents that cover any enhancer with any drug, (2) patents with specific enhancers; (3) patents with many enhancers for a specific drug; and (4) patents on non chemical types of enhancement but excluding iontophoresis. The category covering specific enhancers is by far the largest. This has been further subdivided according to the chemical nature of the enhancer alcohols, amides, amino acids, Azone® and Azone-like compounds, essential oils, fatty acids and fatty acid esters, macrocyclic compounds, phospholipids and phosphate derivatives, 2-pyrrolidone derivatives, so-called soft penetration enhancers, sulphoxides, and various miscellaneous enhancer compounds.

CONTROLLED TERM: Medical Descriptors:
*skin penetration
***transdermal drug administration**
article
drug research
medical literature
patent
priority journal
Drug Descriptors:
*penetration enhancing agent: PR, pharmaceutics
2 pyrrolidone derivative: PR, pharmaceutics
adipic acid diisopropyl ester: PR, pharmaceutics
adipic acid dioctyl ester: PR, pharmaceutics
alcohol: PR, pharmaceutics
amide: PR, pharmaceutics
amino acid: PR, pharmaceutics
benzyl alcohol: PR, pharmaceutics

cyclodextrin: PR, pharmaceutics
cyclopentadecanolide: PR, pharmaceutics
dialkyl phosphate derivative: PR, pharmaceutics
dimethyl sulfoxide: PR, pharmaceutics
essential oil: PR, pharmaceutics
fatty acid: PR, pharmaceutics
fatty acid ester: PR, pharmaceutics
2 hydroxypropyl beta cyclodextrin: PR, pharmaceutics
laurocapram: PR, pharmaceutics
macrocyclic compound: PR, pharmaceutics
macrogol: PR, pharmaceutics
myristic acid isopropyl ester: PR, pharmaceutics
phosphatidylcholine: PR, pharmaceutics
phospholipid: PR, pharmaceutics
phosphorus derivative: PR, pharmaceutics
propylene glycol: PR, pharmaceutics
sulfoxide: PR, pharmaceutics
unindexed drug
unclassified drug

CAS REGISTRY NO.: (adipic acid diisopropyl ester) 6938-94-9; (adipic acid dioctyl ester) 123-79-5; (alcohol) 64-17-5; (amide) 17655-31-1; (amino acid) 65072-01-7; (benzyl alcohol) 100-51-6; (cyclodextrin) 12619-70-4; (**dimethyl sulfoxide**) **67-68-5**; (2 hydroxypropyl beta cyclodextrin) 94035-02-6; (laurocapram) 59227-89-3; (macrogol) 25322-68-3; (myristic acid isopropyl ester) 110-27-0; (phosphatidylcholine) 55128-59-1, 8002-43-5; (propylene glycol) 57-55-6; (sulfoxide) 120-62-7

CHEMICAL NAME: (1) Azone

COMPANY NAME: (1) Nelson; Kao; Home products; Neutrogena; Ciba geigy; Eastman kodak; Schering plough; Alza corporation; Knoll; Searle; Toyama chemical; Takeda chemical industries; Beiersdorf; Paco

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ACCESSION NUMBER: 92059078 EMBASE Full-text

DOCUMENT NUMBER: 1992059078

TITLE: Recent progress in protein and peptide delivery by noninvasive routes.

AUTHOR: Wearley L.L.

CORPORATE SOURCE: Schering-Plough Corp., 2000 Galloping Hill Rd., Kenilworth, NJ 07033, United States

SOURCE: Critical Reviews in Therapeutic Drug Carrier Systems, (1991) Vol. 8, No. 4, pp. 331-394.
ISSN: 0743-4863 CODEN: CRTSEO

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 29 Mar 1992
Last Updated on STN: 29 Mar 1992

ABSTRACT: Much progress has been made in the last 5 years toward delivery of protein and peptide drugs by noninvasive routes. The obstacles of instability, poor absorption, rapid metabolism, and nonlinear pharmacokinetics are great challenges for which some solutions are now emerging. Structural modifications

of the protein by chemical or recombinant means have improved stability and minimized enzymatic cleavage in some cases. Protection of the protein or peptide drug via liposomes or polymers also offers a means for increasing stability and prolonging half-life. Novel permeation enhancers, which show minimal irritation to mucosal membranes, have become available and show promise for increasing absorption of proteins delivered by a number of noninvasive routes. There are examples in which several of these methods have been used concomitantly to achieve maximum effect; for instance, a bioadhesive microsphere formulation containing a novel permeation enhancer was used to maximize nasal delivery of insulin. Therefore, general methods exist whereby delivery by any noninvasive route may be improved. In some cases, choice of the best route of delivery for a particular drug makes the difference between success and failure. A comparison of the enzyme activity at the various sites of delivery is helpful and, fortuitously, the enkephalins, model peptides whose rate of cleavage and type of degradation products offer information about the type and activity of enzymes present, have been studied extensively. This work is reviewed for each delivery site as are the effects of coadministration of enzyme inhibitors. Permeation enhancers and examples for their use at each site of delivery are presented. The use of polymers for bioadhesion and for protection from metabolism at various sites is reviewed. Since systemic delivery of proteins via the pulmonary route is now receiving more attention, special emphasis is given to that work. Generally, the focus is on work published or presented since 1988, since publications prior to that date have already been thoroughly reviewed. The studies presented indicate that the problems of delivering protein and peptide drugs by noninvasive means can be minimized; although delivery by these routes still may not be bioequivalent to invasive methods, the convenience to the patient will, in some cases, outweigh the demand for complete bioequivalence.

CONTROLLED TERM: Medical Descriptors:
*drug administration
*drug bioavailability
buccal drug administration
drug absorption
drug metabolism
drug stability
human
inhalational drug administration
intranasal drug administration
intravaginal drug administration
nonhuman
oral drug administration
rectal drug administration
review
transdermal drug administration
pharmaceutics
*drug delivery system
Drug Descriptors:
*enzyme inhibitor: PR, pharmaceutics
*peptide: PR, pharmaceutics
*peptide: PK, pharmacokinetics
*peptide: AD, drug administration
*polymer: PR, pharmaceutics
*protein: PR, pharmaceutics
*protein: AD, drug administration
*protein: PK, pharmacokinetics
beta interferon: AD, drug administration
beta interferon: PK, pharmacokinetics
buserelin: PK, pharmacokinetics
buserelin: AD, drug administration

calcitonin: PK, pharmacokinetics
calcitonin: AD, drug administration
cetomacrogol: PR, pharmaceutics
chelating agent: PR, pharmaceutics
deoxycholate sodium: PR, pharmaceutics
desmopressin: PK, pharmacokinetics
desmopressin: AD, drug administration
dodecyl sulfate sodium: PR, pharmaceutics
enkephalin derivative: PR, pharmaceutics
enkephalin derivative: PK, pharmacokinetics
enkephalin derivative: AD, drug administration
glucagon: AD, drug administration
glucagon: PK, pharmacokinetics
glycocholate sodium: PR, pharmaceutics
glycodihydrofusidic acid: PR, pharmaceutics
gonadorelin: PK, pharmacokinetics
gonadorelin: AD, drug administration
growth hormone: AD, drug administration
growth hormone: PK, pharmacokinetics
growth hormone releasing factor: PK, pharmacokinetics
growth hormone releasing factor: AD, drug administration
insulin: PR, pharmaceutics
insulin: PK, pharmacokinetics
insulin: AD, drug administration
metkephamid: AD, drug administration
metkephamid: PK, pharmacokinetics
nafarelin: PK, pharmacokinetics
nafarelin: AD, drug administration
oxytocin: AD, drug administration
oxytocin: PK, pharmacokinetics
penetration enhancing agent: PR, pharmaceutics
polidocanol: PR, pharmaceutics
protirelin: PK, pharmacokinetics
protirelin: AD, drug administration
secretin: PK, pharmacokinetics
secretin: AD, drug administration
somatostatin: PK, pharmacokinetics
somatostatin: AD, drug administration
taurocholic acid: PR, pharmaceutics
taurodihydrofusidate: PR, pharmaceutics
unclassified drug

CAS REGISTRY NO.: (protein) 67254-75-5; (buserelin) 57982-77-1; (calcitonin) 12321-44-7, 21215-62-3, 9007-12-9; (cetomacrogol) 9004-95-9; (deoxycholate sodium) 302-95-4; (desmopressin) 16679-58-6; (dodecyl sulfate sodium) 151-21-3; (glucagon) 11140-85-5, 62340-29-8, 9007-92-5; (glycocholate sodium) 863-57-0; (gonadorelin) 33515-09-2, 9034-40-6; (growth hormone) 36992-73-1, 37267-05-3, 66419-50-9, 9002-72-6; (growth hormone releasing factor) 83930-13-6, 9034-39-3; (insulin) 9004-10-8; (metkephamid) 66960-34-7; (nafarelin) 76932-56-4; (oxytocin) 50-56-6, 54577-94-5; (polidocanol) 60828-78-6, 9002-92-0; (protirelin) 24305-27-9; (secretin) 1393-25-5, 17034-35-4, 73559-81-6; (somatostatin) 38916-34-6, 51110-01-1; (taurocholic acid) 145-42-6, 59005-70-8, 81-24-3; (taurodihydrofusidate) 42907-93-7, 53163-88-5

L122 ANSWER 62 OF 62 EMBASE
ACCESSION NUMBER: 92037735 EMBASE Full-text

DOCUMENT NUMBER: 1992037735

TITLE: Mucosal penetration enhancers for facilitation of peptide and protein drug absorption.

AUTHOR: Lee V.H.L.; Yamamoto A.; Kompella U.B.

CORPORATE SOURCE: University of Southern California, School of Pharmacy, Department of Pharmaceutical Sciences, 1985 Zonal Avenue, Los Angeles, CA 90033, United States

SOURCE: Critical Reviews in Therapeutic Drug Carrier Systems, (1991) Vol. 8, No. 2, pp. 91-192. .
ISSN: 0743-4863 CODEN: CRTSEO

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
052 Toxicology
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

ENTRY DATE: Entered STN: 20 Mar 1992
Last Updated on STN: 20 Mar 1992

CONTROLLED TERM: Medical Descriptors:
*drug absorption
*drug administration
*mucosa
human
intranasal drug administration
intravaginal drug administration
membrane transport
mucociliary clearance
nonhuman
oral drug administration
physical chemistry
rectal drug administration
review
spectroscopy
structure activity relation
transdermal drug administration
Drug Descriptors:
*peptide: PK, pharmacokinetics
*peptide: PR, pharmaceutics
*protein: PK, pharmacokinetics
*protein: PR, pharmaceutics
acetylcholine derivative: PR, pharmaceutics
acylcarnitine: PR, pharmaceutics
aprotinin: PR, pharmaceutics
bile salt: PR, pharmaceutics
cetomacrogol: PR, pharmaceutics
chelating agent: PR, pharmaceutics
citric acid: PR, pharmaceutics
decanoic acid: PR, pharmaceutics
deoxycholate sodium: PR, pharmaceutics
diacylglycerol: PR, pharmaceutics
dodecyl sulfate sodium: PR, pharmaceutics
edetic acid: PR, pharmaceutics
enamine: PR, pharmaceutics
fatty acid derivative: PR, pharmaceutics
glycocholate sodium: PR, pharmaceutics
glycodihydrofusidic acid: PR, pharmaceutics
hydroxypropylcellulose: PR, pharmaceutics
methylcellulose: PR, pharmaceutics

octanoic acid: PR, pharmaceutics
oleic acid: PR, pharmaceutics
penetration enhancing agent: PD, pharmacology
penetration enhancing agent: TO, drug toxicity
penetration enhancing agent: PR, pharmaceutics
polidocanol: PR, pharmaceutics
salicylic acid: PR, pharmaceutics
surfactant: PR, pharmaceutics
taurocholic acid: PR, pharmaceutics
taurodihydrofusidate: PR, pharmaceutics
unclassified drug

CAS REGISTRY NO.: (protein) 67254-75-5; (aprotinin) 11004-21-0, 12407-79-3, 50936-63-5, 52229-70-6, 58591-29-0, 9050-74-2, 9075-10-9, 9087-70-1; (cetomacrogol) 9004-95-9; (citric acid) 126-44-3, 5949-29-1, 77-92-9, 8002-14-0; (decanoic acid) 334-48-5, 3398-75-2; (deoxycholate sodium) 302-95-4; (dodecyl sulfate sodium) 151-21-3; (edetic acid) 150-43-6, 60-00-4; (glycocholate sodium) 863-57-0; (hydroxypropylcellulose) 9004-64-2; (methylcellulose) 79484-92-7, 9004-67-5; (octanoic acid) 124-07-2, 1984-06-1, 74-81-7; (oleic acid) 112-80-1, 115-06-0; (polidocanol) 60828-78-6, 9002-92-0; (salicylic acid) 63-36-5, 69-72-7; (taurocholic acid) 145-42-6, 59005-70-8, 81-24-3; (taurodihydrofusidate) 42907-93-7, 53163-88-5

FILE 'HOME' ENTERED AT 14:46:27 ON 11 JAN 2007

SEARCH HISTORY

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=> d his nofile

     (FILE 'HOME' ENTERED AT 13:41:45 ON 11 JAN 2007)

     FILE 'CAPLUS' ENTERED AT 13:42:05 ON 11 JAN 2007
                E US2004-511463/APPS
L1            1 SEA ABB=ON  LANDSCHAFT Y?/AU
                D SCAN

     FILE 'REGISTRY' ENTERED AT 13:43:57 ON 11 JAN 2007
L2            1 SEA ABB=ON  CHOLESTEROL/CN
L*** DEL      0 S DIMETHYLSULFOXIDE/CN
L3            1 SEA ABB=ON  METHYLSULFONYLMETHANE/CN
L4            1 SEA ABB=ON  2,3-DIMETHYLSULFOLANE/CN
L5            1 SEA ABB=ON  2,4-DIMETHYLSULFOLANE
L6            1 SEA ABB=ON  67-68-5
                E SODIUM LAURYL SULFATE/CN
L7            1 SEA ABB=ON  SODIUM LAURYL SULFATE/CN
                E LECITHIN/CN

     FILE 'CAPLUS' ENTERED AT 13:45:01 ON 11 JAN 2007
L8        29874 SEA ABB=ON  LECITHIN#/OBI
L9         5802 SEA ABB=ON  BILE SALT#/OBI
                D SCAN L1
L10       11358 SEA ABB=ON  TRANSDERM?/OBI
L11      119778 SEA ABB=ON  L2
L12       69970 SEA ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L13           4 SEA ABB=ON  L11 AND L8 AND L9 AND L12 AND L10
L14          39 SEA ABB=ON  (L11 OR L8 OR L9) AND L12 AND L10
L15     2163492 SEA ABB=ON  PHARMAC?/SC,SX
L16          39 SEA ABB=ON  L15 AND L14
L17      166735 SEA ABB=ON  EMULSI?/OBI
L18          15 SEA ABB=ON  L14 AND L17
                D QUE
L19          22 SEA ABB=ON  NON OILY/OBI OR NONOILY/OBI
L20           1 SEA ABB=ON  L19 AND L10
L21          35 SEA ABB=ON  L16 NOT (L13 OR L1 OR L20)

     FILE 'STNGUIDE' ENTERED AT 13:50:29 ON 11 JAN 2007

     FILE 'CAPLUS' ENTERED AT 13:52:13 ON 11 JAN 2007
                D QUE L21
                D QUE L16
L22          13 SEA ABB=ON  ((L11 AND (L8 OR L9)) OR (L8 AND L9)) AND L12 AND
                L10
L23           0 SEA ABB=ON  L13 NOT L22
L24           0 SEA ABB=ON  L20 NOT L22
                D SCAN L1
L25        4590 SEA ABB=ON  SKIN/OBI(L)(PERMEAT?/OBI OR PENETRAT?/OBI)
L26           2 SEA ABB=ON  ((L11 AND (L8 OR L9)) OR (L8 AND L9)) AND L12 AND
                L25
L27          13 SEA ABB=ON  (L11 OR L8 OR L9) AND L12 AND L25
L28          11 SEA ABB=ON  L27 NOT L22
L29          12 SEA ABB=ON  L27 AND L15
L30           7 SEA ABB=ON  (L8 OR L9) AND L12 AND L25
L31          29 SEA ABB=ON  L11(L)L25
L32           2 SEA ABB=ON  L11(L)L25 AND L12
                D SCAN TI
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L33          16 SEA ABB=ON  L17(L)L11 AND L12
L34           1 SEA ABB=ON  L17(L)L11 AND L12 AND L25

     FILE 'WPIX' ENTERED AT 13:59:46 ON 11 JAN 2007
L35           1 SEA ABB=ON  LANDSCHAFT Y?/AU
                D TRIAL 1

     FILE 'STNGUIDE' ENTERED AT 14:00:07 ON 11 JAN 2007

     FILE 'WPIX' ENTERED AT 14:03:02 ON 11 JAN 2007
                E B01-D02+ALL/MC
                E B04-B01B+ALL/MC
                E B04-J03A+ALL/MC
                E B05-A01B+ALL/MC
                E B05-B01P+ALL/MC
                E B07-B02+ALL/MC
                E B10-A09C+ALL/MC
                E B10-A10+ALL/MC
                E B10-C04C+ALL/MC
                E B12-M02F+ALL/MC
                E B14-C03+ALL/MC
                E B14-S04+ALL/MC
                E C01-D02+ALL/MC
                E  C04-B01B+ALL/MC
                E C04-J03A+ALL/MC
                E C05-A01B+ALL/MC
                E  C05-B01P+ALL/MC
                E  C07-B02+ALL/MC
                E  C10-A09C+ALL/MC
                E C10-A10+ALL/MC
                E C10-C04C+ALL/MC
                E C12-M02F+ALL/MC
                E C14-C03+ALL/MC
                E C14-S04+ALL/MC

     FILE 'STNGUIDE' ENTERED AT 14:03:35 ON 11 JAN 2007

     FILE 'WPIX' ENTERED AT 14:04:12 ON 11 JAN 2007
L36        4569 SEA ABB=ON  B12-M02F/MC OR C12-M02F/MC
L37       24886 SEA ABB=ON  TRANSDERM?/BI,ABEX
L38        2839 SEA ABB=ON  (DERM?/BI,ABEX OR SKIN/BI,ABEX)(3A)(PERMEAT?/BI,ABE
                X OR PENETRAT?/BI,ABEX)
L39        9481 SEA ABB=ON  LECITHIN#/BI,ABEX
L40         593 SEA ABB=ON  BILE SALT#/BI,ABEX
L41       17188 SEA ABB=ON  CHOLESTEROL/BI,ABEX
L42        1380 SEA ABB=ON  ORGANIC/BI,ABEX(W)(SULFUR/BI,ABEX OR SULPHUR/BI,ABE
                X)
L43       12292 SEA ABB=ON  DIMETHYLSULFOXIDE/BI,ABEX OR (DIMETHYL/BI,ABEX OR
                DI METHYL/BI,ABEX)(W)(SULFOXIDE/BI,ABEX OR SULPHOXIDE/BI,ABEX)
L44         190 SEA ABB=ON  METHYLSULFONYLMETHANE/BI,ABEX OR METHYLSULPHONYLMET
                HANE/BI,ABEX OR (METHYL/BI,ABEX(W)(SULFONYL/BI,ABEX OR
                SULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX) OR METHYL/BI,ABEX(W)(SULF
                ONYLMETHANE/BI,ABEX OR SULPHONYLMETHANE/BI,ABEX) OR (METHYLSULF
                ONYL/BI,ABEX OR METHYSULPHONYL/BI,ABEX)(W)METHANE/BI,ABEX
L45          34 SEA ABB=ON  DIMETHYLSULFOLANE/BI,ABEX OR DIMETHYSULPHOLANE/BI,A
                BEX OR (DIMETHYL/BI,ABEX OR DI METHYL/BI,ABEX)(W)(SULPHOLANE/BI
                ,ABEX OR SULFOLANE/BI,ABEX)
L46        4401 SEA ABB=ON  SODIUM LAURYL/BI,ABEX(W)(SULFATE/BI,ABEX OR
                SULPHATE/BI,ABEX)
L47         185 SEA ABB=ON  NONOILY/BI,ABEX OR NON OILY/BI,ABEX
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L*** DEL    2? S EMULSI?
L48        70299 SEA ABB=ON  EMULSI?/BI,ABEX
L49            2 SEA ABB=ON  (L36 OR L37 OR L38) AND L39 AND L40 AND L41 AND
                 (L42 OR L43 OR L44 OR L45 OR L46)
L50           13 SEA ABB=ON  (L36 OR L37 OR L38) AND ((L39 AND (L40 OR L41)) OR
                 (L40 AND L41)) AND (L42 OR L43 OR L44 OR L45 OR L46)
L51            6 SEA ABB=ON  (L36 OR L37 OR L38) AND L47
L52            4 SEA ABB=ON  (L36 OR L37 OR L38) AND L47 AND (L39 OR L40 OR L41
                 OR L42 OR L43 OR L44 OR L45 OR L46 OR L48)
L53           11 SEA ABB=ON  L50 NOT (L35 OR L49 OR L52)
                 D TRIAL 1-11
L54            6 SEA ABB=ON  L50 AND (TRANSDERM?/TI OR L36)
                 D TRIAL 1-6
L55            1 SEA ABB=ON  L53 AND INSULIN/BI,ABEX
                 D SCAN
                 D QUE
                 D KWIC
L56            3 SEA ABB=ON  L50 AND INSULIN/BI,ABEX

     FILE 'MEDLINE' ENTERED AT 14:19:19 ON 11 JAN 2007
L57            0 SEA ABB=ON  LANDSCHAFT Y?/AU
L58         9117 SEA ABB=ON  ADMINISTRATION, CUTANEOUS/CT
L59         1480 SEA ABB=ON  ADMINISTRATION, RECTAL/CT
L60         2224 SEA ABB=ON  ADMINISTRATION, INTRAVAGINAL/CT
L61        27079 SEA ABB=ON  PHOSPHATIDYLCHOLINES+NT/CT
L62        26145 SEA ABB=ON  "BILE ACIDS AND SALTS"+NT/CT
L63        85938 SEA ABB=ON  CHOLESTEROL/CT
L*** DEL   16641 S L43-L46
L64        15552 SEA ABB=ON  DIMETHYLSULFOXIDE OR (DIMETHYL OR DI METHYL)(W)(SUL
                 FOXIDE OR SULPHOXIDE)
L65           22 SEA ABB=ON  METHYLSULFONYLMETHANE OR METHYLSULPHONYLMETHANE OR
                 (METHYL(W)(SULFONYL OR SULPHONYL)(W)METHANE) OR METHYL(W)(SULFO
                 NYLMETHANE OR SULPHONYLMETHANE) OR (METHYLSULFONYL OR METHYSULP
                 HONYL)(W)METHANE
L66            2 SEA ABB=ON  DIMETHYLSULFOLANE OR DIMETHYSULPHOLANE OR (DIMETHYL
                  OR DI METHYL)(W)(SULPHOLANE OR SULFOLANE)
L67         1093 SEA ABB=ON  SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L68        19751 SEA ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L69            0 SEA ABB=ON  (L58 OR L59 OR L60) AND L61 AND L62 AND L63 AND
                 (L64 OR L65 OR L66 OR L67 OR L68)
L70            1 SEA ABB=ON  (L58 OR L59 OR L60) AND (L61 OR L62 OR L63) AND
                 (L64 OR L65 OR L66 OR L67 OR L68)
L71            0 SEA ABB=ON  (L58 OR L59 OR L60) AND L61 AND L62 AND L63
L72           10 SEA ABB=ON  (L58 OR L59 OR L60) AND ((L61 AND (L62 OR L63)) OR
                 (L62 AND L63))
                 D TRIAL 1-10
L73        10056 SEA ABB=ON  DRUG CARRIERS/CT
L74            5 SEA ABB=ON  (L58 OR L59 OR L60) AND ((L61 AND (L62 OR L63)) OR
                 (L62 AND L63))  AND L73

     FILE 'EMBASE' ENTERED AT 14:28:01 ON 11 JAN 2007
L75            0 SEA ABB=ON  LANDSCHAFT Y?/AU
                 E TRANSDER/CT
L76        11773 SEA ABB=ON  TRANSDERMAL DRUG ADMINISTRATION+NT/CT
                 E CHOLESTEROL/CT
L77        65530 SEA ABB=ON  CHOLESTEROL/CT
                 E LECITHIN/CT
                 E E3+ALL
                 E E2+ALL
L78        17422 SEA ABB=ON  PHOSPHATIDYLCHOLINE/CT
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                E BILE SALTS/CT
                E BILE SALT/CT
                E E3+ALL
L79          3941 SEA ABB=ON  BILE SALT+NT/CT
L80         19557 SEA ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L*** DEL    19557 S L3-L7
L81         17096 SEA ABB=ON  (L64 OR L65 OR L66 OR L67)
L82            12 SEA ABB=ON  L76 AND (L77 OR L78 OR L79) AND (L80 OR L81)
                D TRIAL 1-12

     FILE 'AGRICOLA, CABA' ENTERED AT 14:32:51 ON 11 JAN 2007
L83             0 SEA ABB=ON  LANDSCHAFT Y?/AU
L84           273 SEA ABB=ON  TRANSDERM?
L85           706 SEA ABB=ON  (DERM? OR SKIN)(3A)(PERMEAT? OR PENETRAT?)
L86         56676 SEA ABB=ON  CHOLESTEROL
L87          8885 SEA ABB=ON  LECITHIN# OR PHOSPHATIDYLCHOLINE#
L88          2131 SEA ABB=ON  BILE SALT#
L89          4523 SEA ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L90          1629 SEA ABB=ON  ORGANIC(W)(SULFUR OR SULPHUR)
L91          3433 SEA ABB=ON  DIMETHYLSULFOXIDE OR (DIMETHYL OR DI METHYL)(W)(SUL
                  FOXIDE OR SULPHOXIDE)
L92            16 SEA ABB=ON  METHYLSULFONYLMETHANE OR METHYLSULPHONYLMETHANE OR
                  (METHYL(W)(SULFONYL OR SULPHONYL)(W) METHANE) OR METHYL(W)(SULF
                  ONYLMETHANE OR SULPHONYLMETHANE) OR (METHYLSULFONYL OR
                  METHYSULPHONYL)(W) METHANE
L93             0 SEA ABB=ON  DIMETHYLSULFOLANE OR DIMETHYSULPHOLANE OR (DIMETHYL
                   OR DI METHYL)(W)(SULPHOLANE OR SULFOLANE)
L94           258 SEA ABB=ON  SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L95             0 SEA ABB=ON  (L84 OR L85) AND (L86 OR L87 OR L88) AND (L89 OR
                  L90 OR L91 OR L92 OR L93 OR L94)
L96            25 SEA ABB=ON  (L84 OR L85) AND (L86 OR L87 OR L88)
L97             2 SEA ABB=ON  ((L86 AND (L87 OR L88)) OR (L87 AND L88)) AND (L84
                  OR L85)

     FILE 'BIOSIS, KOSMET' ENTERED AT 14:36:11 ON 11 JAN 2007
L98             0 SEA ABB=ON  LANDSCHAFT Y?/AU
L99          7804 SEA ABB=ON  TRANSDERM?
L100         3924 SEA ABB=ON  (DERM? OR SKIN)(3A)(PERMEAT? OR PENETRAT?)
L101       153008 SEA ABB=ON  CHOLESTEROL
L102        40693 SEA ABB=ON  LECITHIN# OR PHOSPHATIDYLCHOLINE#
L103         7428 SEA ABB=ON  BILE SALT#
L104        17468 SEA ABB=ON  (L3 OR L4 OR L5 OR L6 OR L7)
L105          576 SEA ABB=ON  ORGANIC(W)(SULFUR OR SULPHUR)
L106        13841 SEA ABB=ON  DIMETHYLSULFOXIDE OR (DIMETHYL OR DI METHYL)(W)(SUL
                  FOXIDE OR SULPHOXIDE)
L107           48 SEA ABB=ON  METHYLSULFONYLMETHANE OR METHYLSULPHONYLMETHANE OR
                  (METHYL(W)(SULFONYL OR SULPHONYL)(W) METHANE) OR METHYL(W)(SULF
                  ONYLMETHANE OR SULPHONYLMETHANE) OR (METHYLSULFONYL OR
                  METHYSULPHONYL)(W) METHANE
L108            5 SEA ABB=ON  DIMETHYLSULFOLANE OR DIMETHYSULPHOLANE OR (DIMETHYL
                   OR DI METHYL)(W)(SULPHOLANE OR SULFOLANE)
L109         1969 SEA ABB=ON  SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L*** DEL     1969 S SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L*** DEL     1969 S SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L*** DEL     1969 S SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L*** DEL     1969 S SODIUM LAURYL(W)(SULFATE OR SULPHATE)
L110            4 SEA ABB=ON  (L99 OR L100) AND (L101 OR L102 OR L103) AND (L104
                  OR L105 OR L106 OR L107 OR L108 OR L109)
                D SCAN
L111           16 SEA ABB=ON  (L99 OR L100) AND ((L101 AND (L102 OR L103)) OR
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                (L102 AND L103)
L112          16 SEA ABB=ON  L111 NOT L110
L113          16 DUP REM L112 (0 DUPLICATES REMOVED)
                     ANSWERS '1-14' FROM FILE BIOSIS
                     ANSWERS '15-16' FROM FILE KOSMET
                 D SCAN
L114       81161 SEA ABB=ON  HDL OR LDL OR DENSITY LIPOPROTEIN#
L115          14 SEA ABB=ON  L111 NOT L114
L116           0 SEA ABB=ON  L101 AND L102 AND L103 AND (L99 OR L100)

      FILE 'STNGUIDE' ENTERED AT 14:41:36 ON 11 JAN 2007

      FILE 'CAPLUS' ENTERED AT 14:42:45 ON 11 JAN 2007
                 D QUE L1

      FILE 'WPIX' ENTERED AT 14:42:45 ON 11 JAN 2007
                 D QUE L35

      FILE 'MEDLINE' ENTERED AT 14:42:47 ON 11 JAN 2007
                 D QUE L57

      FILE 'EMBASE' ENTERED AT 14:42:47 ON 11 JAN 2007
                 D QUE L75

      FILE 'AGRICOLA, CABA' ENTERED AT 14:42:48 ON 11 JAN 2007
                 D QUE L83

      FILE 'BIOSIS, KOSMET' ENTERED AT 14:42:48 ON 11 JAN 2007
                 D QUE L98

      FILE 'CAPLUS, WPIX' ENTERED AT 14:42:50 ON 11 JAN 2007
L117           1 DUP REM L1 L35 (1 DUPLICATE REMOVED)
                     ANSWER '1' FROM FILE CAPLUS
                 D IBIB ED ABS HITIND

      FILE 'STNGUIDE' ENTERED AT 14:43:09 ON 11 JAN 2007

      FILE 'CAPLUS' ENTERED AT 14:44:39 ON 11 JAN 2007
                 D QUE L22
                 D QUE L20
                 D QUE L30
                 D QUE L32
                 D QUE L34
L118          19 SEA ABB=ON  (L22 OR L20 OR L30 OR L32 OR L34) NOT L1

      FILE 'WPIX' ENTERED AT 14:44:41 ON 11 JAN 2007
                 D QUE L49
                 D QUE L52
                 D QUE L54
                 D QUE L56
L119          10 SEA ABB=ON  (L49 OR L52 OR L54 OR L56) NOT L35

      FILE 'MEDLINE' ENTERED AT 14:44:45 ON 11 JAN 2007
                 D QUE L70
                 D QUE L74
L120           6 SEA ABB=ON  (L70 OR L74)

      FILE 'EMBASE' ENTERED AT 14:44:47 ON 11 JAN 2007
                 D QUE L82
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SALTS/FILE 'AGRICOLA, CABA' ENTERED AT 14:44:48 ON 11 JAN 2007

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                D QUE L95
                D QUE L97

     FILE 'BIOSIS, KOSMET' ENTERED AT 14:44:49 ON 11 JAN 2007
                D QUE L115
                D QUE L110
L121          18 SEA ABB=ON  (L115 OR L110)

     FILE 'STNGUIDE' ENTERED AT 14:44:59 ON 11 JAN 2007

     FILE 'MEDLINE, CABA, CAPLUS, WPIX, BIOSIS, KOSMET, EMBASE' ENTERED AT
     14:45:35 ON 11 JAN 2007
L122          62 DUP REM L120 L97 L118 L119 L121 L82 (5 DUPLICATES REMOVED)
                    ANSWERS '1-6' FROM FILE MEDLINE
                    ANSWERS '7-8' FROM FILE CABA
                    ANSWERS '9-27' FROM FILE CAPLUS
                    ANSWERS '28-34' FROM FILE WPIX
                    ANSWERS '35-48' FROM FILE BIOSIS
                    ANSWERS '49-51' FROM FILE KOSMET
                    ANSWERS '52-62' FROM FILE EMBASE
                D IALL 1-8
                D IBIB ED ABS HITIND 9-27
                D IALL ABEQ TECH 28-34
                D IALL 35-62

     FILE 'HOME' ENTERED AT 14:46:27 ON 11 JAN 2007

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